

*Class 8.
A Fuchsia blossom.
"Eight men in the same marriage with one woman."*

GOD CREATED, LINNEAUS CLASSIFIED

You can't help but notice Swedish botanist, zoologist, and physician Carl Von Linné during 2007. It's not just the scientific events, exhibitions, educational projects, publications and tourist attractions that signal this is a special anniversary, but the face of the man, who created the nomenclature system still used by scientists all over the world to describe plants and animals and helped lay the foundations for the modernisation of Swedish society seems to be everywhere, smiling up from bank notes, milk cartons, stamps and giant road signs. Though born 300 years ago, the legacy of this proud son of Southern Sweden lives on throughout the land.

Råshult looks pretty much like it did 300 years ago. Once a typical Småland farm, it still has the narrow, stony fields, lush meadows and colourful gardens of Linné's time, though these days it's a nature reserve. Herbs, flowers and vegetables grow in the allotments just like the ones Nils Linnaeus, the local vicar, planted here three centuries ago. The vicar's first child, a son christened Carl Linnaeus (his name was changed to Carl Von Linné after his 1757 ennoblement), was born here on May 23rd, 1707. While the family's home has not survived the past 300 years, the reserve does feature an 18th century farmhouse and other reconstructed buildings, as well as beau-

tiful parks and many varieties of plants and animals.

Early years

When the young Carl Linnaeus was aged two, the family moved to nearby Stenbrohult. His clergyman father was also an amateur botanist and gardener and had an important influence on the growing child. "The garden, which my father once laid out, has more different kinds of plants than any garden in Småland," Linné wrote during one of his later expeditions. "This garden, coming together with my mother's milk, has inflamed my whole being with an unquenchable love of plants."

Nicknamed "the little botanist" by the

age of eight years old, Linné's fascination with flowers and plants also developed during time spent in the fields and pastureland of Höö, the agricultural landscape of Taxås and the shores of Lake Möckeln. "He loved his country and he had a special feeling for his home province Småland," says Tore Frängsmyr, a professor for the history of science at Uppsala University. Frängsmyr adds although Linné loved other parts of Sweden, "Småland was always in his heart and he talked and wrote much about his parents, his youth and the nature around his home."

Not an exceptional student, Linné's love of the outdoors did little to help foster his studies. Originally destined for a



Class 19.
Cirsium vulgare. Bull thistle.
"The men create a union with their sexual parts"

career in the church like his father, he often neglected his schoolwork and got into trouble with his teachers. As a result, his father and teachers decided he should study medicine, a decision that would orient the young Carl towards science and give the world one of the fathers of ecology.

Three centuries later, the world continues to be fascinated with Linné and tercentenary celebrations are being held this year in 15 different countries, with Sweden at the centre of the festivities. The main events were held on Linné's birthday in Sweden and were attended by, among others, Japanese Emperor Akihito, who is also a marine biologist and a fan of Linné. Other participants included former United Nations Secretary General Kofi Annan and British broadcaster and naturalist David Attenborough. An educational project, a nature film, and an anniversary book depicting the achievements and legacy of Linné are in the works in Sweden; key sites and gardens

special to the botanist and zoologist have also been opened for visitors all around the country. Special events and exhibitions are being held in many museums and universities, accompanied by new publications and research projects.

Classification hierarchy

One of several places taking part in the tercentenary is Lund. This historic town, located in the heart of Sweden's largest agricultural district, hosts one of Scandinavia's largest educational and research institutions -- Lund University, which was founded in 1666. Linné began his academic studies here. Arriving in 1727 at the age of twenty, he rented a room at the home of a local physician and began his journey in the world of medicine, which at the time was a rather neglected and unpopular subject. He took advantage of his time in Lund to explore Skåne and later moved to Uppsala where his academic career really took off.

To understand the great achievements of Linné's career, you need to recognize that during his lifetime there was no comprehensive, scientific order system for the animal and plant kingdom. Linné's sexual classification gave botany order and structure. "Before Linné there was chaos," explains Uppsala University's Frängsmyr. "Some tried to classify plants according to size, colour or other marks. But the borderlines weren't clear; it was impossible to separate a bush from a tree, for instance. Linnaeus made an artificial construction out of pistils and stamens (plants' sexual organs), by which he could divide all plants into 24 classes, making it easy to define a group of plants. He hoped to find a natural system, a kind of blueprint that could show God's original intention."

In doing so, Linné created the basis of the system still used for naming species today. He gave all plants two titles -- a family name and an individual one.

Undeniably, no land in Sweden is like that of Skåne

--Carl von Linné's account of his expedition to southern Sweden

Photo: Sören Hallgren. ©The Linnaeus museum - home of Carl Linnaeus



POTTED FACTS

BORN: Carl Linnaeus on May 23, 1707 in Råshult, Småland

ENNOBLED: In 1761, whereupon he upgraded his name to Carl von Linné

PARENTS: Father, Nils Linnaeus, amateur botanist and Lutheran minister. Mother, Christina Brodersonia

MARRIED: Sara Lisa Moraea. The couple had five children.

LEGACY: Sorted plants into 24 classes based on their sexual parts. Published his famous *Systema Naturae*, which outlines a classification system for the three kingdoms - plants, animals, and minerals - in 1735.

GAVE US: A system for sorting and naming species still in use 300 years after his birth. His second famous book, "*Species Plantarum*" was published in 1753

COINED: The name *Homo Sapiens*

EXPEDITIONS: Lapland (1732), Dalarna (1734), and Skåne (1749)

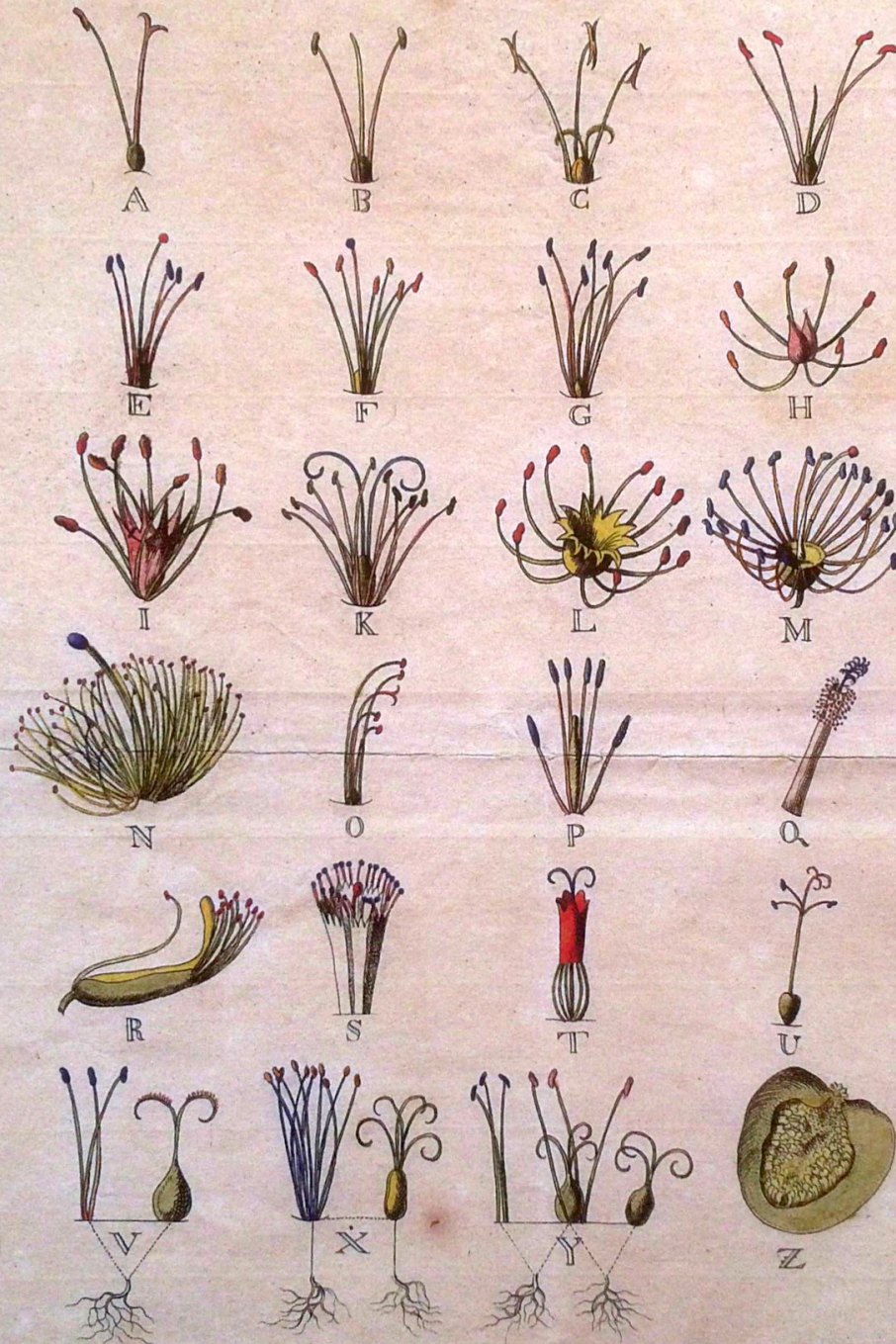
DIED: At his summer home in Hammarby, Uppsala in 1778 and buried in Uppsala's cathedral.

CURIOUS FACT: Sometimes big things come in small packages -- Linné was only 1.54m tall.

CURIOUS BELIEF: Linné believed in myths and legends about strange kinds of humans, so-called cavemen or tailed humans.

Portrait of a young Carl Linnaeus in 1737 following his expedition to Lapland.

Clariss: LINNÆI. M.D.
 METHODUS plantarum SEXUALIS
 in SISTEMATE NATURÆ
 descripta



Monandria.
 Diandria.
 Triandria.
 Tetrandria.
 Pentandria.
 Hexandria.
 Heptandria.
 Octandria.
 Enneandria.
 Decandria.
 Dodecandria.
 Icosandria.
 Polyandria.
 Didynamia.
 Tetradynamia.
 Monadelphina.
 Diadelphina.
 Polyadelphia.
 Syngenesia.
 Gynandria.
 Monoccia.
 Dioecia.
 Polygamia.
 Cryptogamia.

Lugd. bat: 1736

G.D. EHRET. Palat. heidelb.
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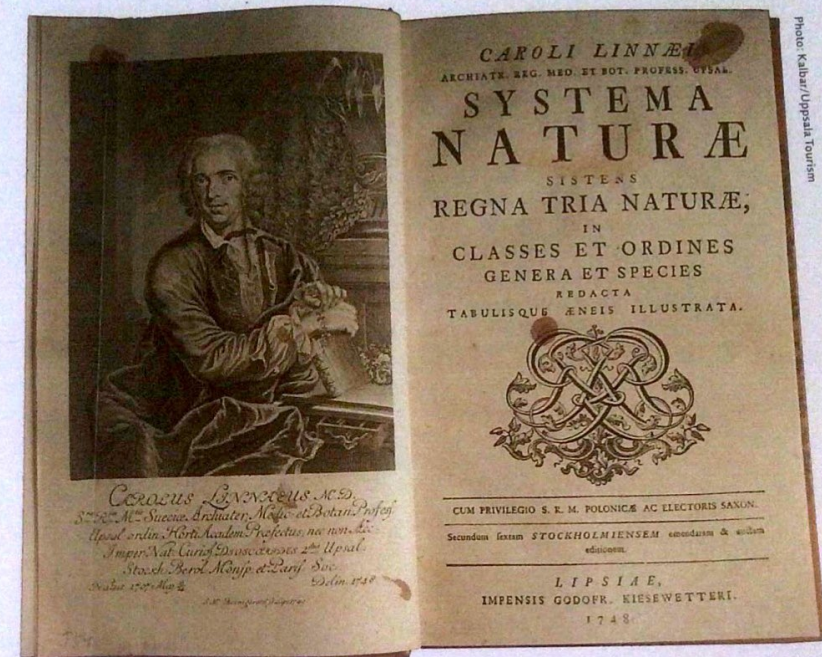
Original illustration of Linné's 24 plant classes by long-time friend and artist, Georg Dionysius Ehret. The Fuchsia flower belongs to the octandria class of plants (H), and the Bull thistle to the syngenesia class (T). Photo: Owe Wennman. ©Uppsala University Library

His system was built on a hierarchy, using three kingdoms, which were divided into classes and then orders, which were further spilt into genera and species. "Before, plants were given a family name plus a very long description with all possible characteristics," says Frängsmyr. "Now, every plant could be identified very quickly - first name for genus, second for species." Linnaeus catalogued all plants known at the time -- around 8,000 different species, as well as all the animals known in the 18th Century - around 4,400 species. "He had a sharp eye for detail," adds Frängsmyr. "In order to specify the second name, Linnaeus had the ability to notice the part of the plant that was characteristic and distinguished it from other species -- the essential parts of the plant."

The Expeditions

In 1732, on his 25th birthday, the Royal Society of Sciences at Uppsala sent Linné on an expedition through Lapland, the sparsely inhabited, northernmost region of Sweden. A few years later, he explored the province of Dalana and its natural resources. These journeys were far from easy and Linné and his travelling companions went through numerous hardships and dangers -- braving hunger, bad weather and dangerous animals to catalogue the plants and animals of these parts of the country. Despite the difficulties, they managed not only to study the flora and fauna, but also the people, their way of life and their work and culture; always coming up with new ideas and suggestions to make their existence better. But it wasn't all work. During the Dalana tour Linné fell in love with a young girl called Sara Lisa Moraea from Falun, who later became his wife. To please his new wife's parents, Linné completed his medical degree, travelling to the Netherlands, where he became a doctor of medicine in just one week at the University of Harderwijk.

Linné stayed in Holland for three years, publishing his groundbreaking *Systema Naturae* in 1735, which ordered the "three kingdoms of nature" - plants, animals, and minerals. Known by close friends as pompous and self-aggrandizing, but charming enough to compensate for his vanity, Linné coined his work "God created, Linnaeus classified". During his time in the Netherlands, Linné led a very active scientific and social life, making both many friends and discoveries. He returned to Sweden in 1738 and opened a doctor's practice in Stockholm,



Linné's *Systema Naturae* in which he catalogued around 7,700 plants and 4,400 animals.

Linné believed in many popular superstitions and claimed, for example, swallows spent the winter hibernating at the bottoms of lakes.

where he was one of the founders and first president of the Royal Academy of Sciences. Further scientific explorations commissioned by the Swedish Parliament followed -- this time to the regions of Skåne and Västergötland, as well as the islands of Gotland and Öland. While at home, Linné worked hard becoming a popular professor and a devoted gardener, making the botanical garden in Uppsala a "living textbook". By then, he was already quite a celebrity. Swedes, known for their love of nature, made the man who revolutionized its understanding a star.

"Linné was a complex person," says Peter Aronsson, Professor of Cultural studies from Linköping University. "He had one foot in the old, orthodox understanding of the world run by an almighty God, and in the other, well-informed by Enlightenment ideas. This gave his personality a split character of reactionary and progressive elements." According to Aronsson, Linné's reputation was also promoted very effectively already in his lifetime through his "disciples" and his

influence extended well beyond his own lifespan. "In the 19th century a new need for cultural heroes and departure from old traditions developed". Sweden's loss of its status as an important world power grew a need for new institutions and diversions among the people. Linné became of pivotal importance in this age of Enlightenment. "He fitted this bill exactly and was seen as a modern, enlightened writer and thinker by reformers during the modernization of Swedish society in the 19th century -- a hero suitable for a period of dramatic change, even though he was already deceased."

While alive, the botanist and doctor became an authority in many different fields, including philosophy, as well as science. "Linné was a combination of a natural scientist and a poet," says Uppsala University's Professor Frängsmyr, "He loved nature; he was convinced that God had created the world, so he had a very personal relation with God and Nature. He gives a charming and personal view of his deep, religious feelings for nature in

01



02



EKVA



03

Foto: Anders Dahlberg, Uppsala Museum

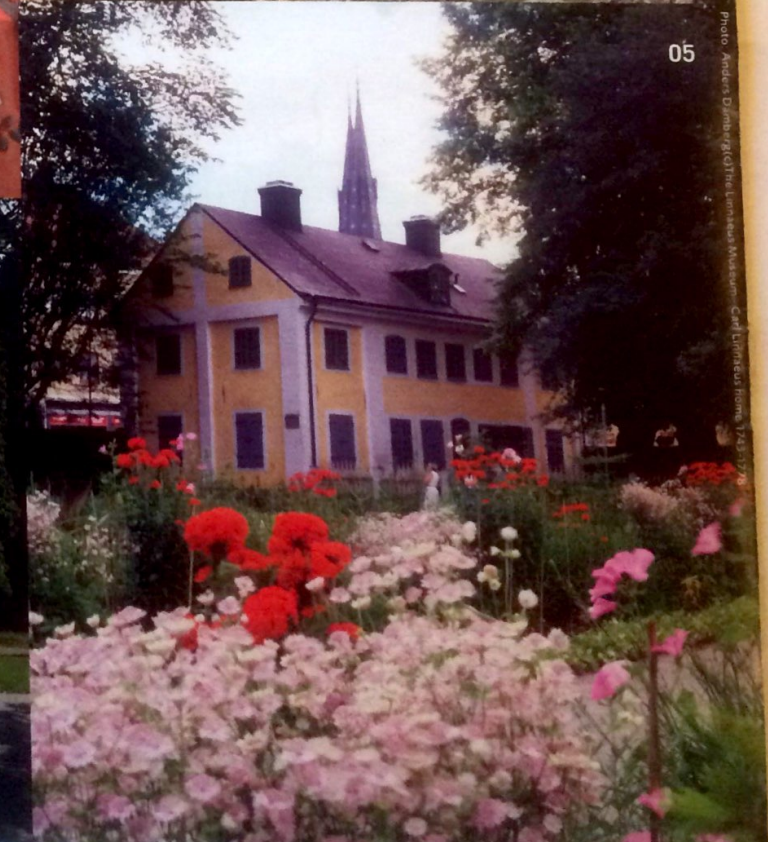
04

Albinus sommar, Foto: Göran Grönberg



05

Foto: Anders Dahlberg, Uppsala Museum, Carl Linné's home, 1743-1770



1: Carl von Linné, 1774. **2:** Linné's beloved summer home, Hammarby, where he died, was bought by the Swedish state and made into a museum. **3:** Hammarby's interior. **4:** Linné's reconstructed childhood home in Råshult. **5:** Linné's stately residence, now The Linneaus Museum, near the University of Uppsala.

his writings. His style was direct and personal, like a journalist, who writes down what he sees at the moment". Though not orthodox, he believed in philosophical freedom and in modern science.

Homo Sapiens

There was another side to Linné's complex personality, according to Professor Frängsmyr. He believed in many popular superstitions and claimed, for example,

originality also resulted in interesting innovations - for example, he was the first to succeed in growing bananas in Europe, in Holland. Linné considered this to be the fruit Eve offered Adam at Eden and so he called it 'Musa Paradisiacal'.

Though his work is universally celebrated today, this wasn't always the case. His scientific approach often came into conflict with more traditional and religious approaches and his classification of

his name from Carl Linnaeus to Carl von Linné. By the time of his death, most people recognised the importance of Linné's work and he became an honorary member of academic institutions all over the world. His friends, fans and followers were a cosmopolitan group. Jean Jacques Rousseau said he knew no greater man on earth, while the German author, Goethe wrote that with the exception of Shakespeare and Spinoza, he knew no one among the no-longer living who had influenced him more strongly.

After some years of bad health, Linné died on January 10th 1778, leaving behind a large family, many books and scientific papers, and a system that became universally accepted. Though he was buried in Uppsala, his roots stayed in southern Sweden, and his heart remained in his childhood village, Stenbrohult. On a return trip there in 1749, he wrote, "I now said goodbye to the flowers, my childhood playmates at Stenbrohult and shores of Lake Möklen." It is said that the words "Nostalgia Stenbrohultensis" were found near his deathbed, simply meaning I long for Stenbrohult. <

Linné created the basis of the system still used for naming species today.

that swallows spent the winter hibernating at the bottoms of lakes. Linné believed in myths and legends about strange kinds of humans, so-called cavemen or tailed humans and sometimes approached medical problems in a very superstitious way. Yet, he was extremely modern in his explanation of stamina and pistils in the eighth class of his hierarchy, calling it a case of eight men in the same bridal chamber with one woman. For Linné, this was just another metaphor, for others it was an immoral way of thinking. His

mankind as part of the animal kingdom was particularly displeasing to the religious authorities. Biological diversity was also a political issue and Linné's division of Homo sapiens (he coined the name) to categories based on place of origin and skin colour caused more controversy. In addition, much of Linné's work was intended to help boost economic growth and use Sweden's many natural resources to fight poverty and hunger.

In 1761, the Swedish government ennobled Linné, whereupon he changed

CAN'T GET ENOUGH?

Carl von Linné's tercentenary is being celebrated just about everywhere in Sweden in the form of concerts, guides, lectures, expeditions, and garden exhibitions. Below is a list of major sites to see and events to attend.

>> Råshult, Stenbrohult, the birthplace of Carl von Linné. www.linnesrashult.se. Tel 0476 21318

>> Follow the trail of Linné's epic journey through southern Sweden. www.linneleden.se. Tel 0417 181 10 or 046 35 50 40

>> Fredriksdal Museum and Gardens, Helsingborg has informative Linné-walks and exhibitions for the family. www.fredriksdal.se. Tel 042 10 45 00

>> Lund Botanical Gardens at the University of Lund, where Linné studied medicine in 1727. www.lu.se. Tel 046 222 00

>> September 6-9, Linnaeus' Tercentenary - Orchid Days at Lund Botanical Gardens. www.linneskane2007.lu.se

>> Ramlösa Brunnspark in Ramlösa,

Helsingborg. Linné visited this area in 1749. Much of the town's 18th century setting remains. www.helsingborg.se Tel 042 10 43 50

>> The Swedish Museum of Natural History, Stockholm. Major Linné exhibition called "From Linnaeus to DNA". www.nrm.se. Tel 08 519 540 00

>> A Linnaean viewpoint - the "Linnaeus in the Countryside" project at Skansen, Stockholm. www.skansen.se

>> A day in Linné's Småland - <http://www.visitsmaland.com>

>> Linné Was Here - a guide showing 33 Linné-locations labeled and signposted throughout Sweden. www.linnaeus2007.se/tourism/linnewashere

>> The Linnaeus Garden and museum in Uppsala. www.linnaeus.uu.se

>> Hammarby, Carl and Sara Lisa von Linné's summer home in Uppsala. www.hammarby.uu.se. Tel 018 471 28 38

