



SOMSO  
MODELLE  
SINCE 1876

ZOOLOGY + BOTANY CATALOGUE A 75/2+3

NATURE IS OUR MODEL




**SOMSO**  
**MODELLE**  
**SINCE 1876**


## SOMSO MODELS RIGHT ON YOUR DOORSTEP


Our trading partners are selected companies providing a good service. You can get information about trading partners in your area under the dealer search column on our Internet page [www.somso.de](http://www.somso.de) or by calling our service line +49 (0) 9561 85740 Mondays to Fridays 7 a.m. to 5 p.m.

## SOMSO-SERVICE

Our trading partners will be only too pleased to be available to you and are already looking forward to getting to know you. No matter whether you are interested in just a single model or planning new projects, our service covers:

 consultancy and planning

 spare parts

 repair service in close co-operation with SOMSO

## THE CATALOGUE

On 17th July 1876 Messrs Marcus Sommer SOMSO Modelle was founded. The catalogue A 75/2+3 had been published during the 130th anniversary year of SOMSO Modelle.

In this catalogue you will find a special selection of original SOMSO Models. You will find further SOMSO Models on the Internet under [www.somso.de](http://www.somso.de).

By registering on our mailing list you will automatically receive information on new publications and further information on new models SOMSO Models.

Please register at [www.somso.de](http://www.somso.de) or contact one of our specialist trading partners.

## DELIVERY SERVICE

Once you have made your choice and have ordered one of our SOMSO Models from one of our trading partners, you can rest assured that everything will be delivered in with the utmost of care. Our partners' philosophy is to provide models of high quality.

## SOMSO MODELS ON THE INTERNET

You can see and get a clear impression of our SOMSO Models and our company philosophy by visiting our website [www.somso.de](http://www.somso.de).

These pages give you information about our anatomical, zoological and botanical SOMSO Models.

You will also find background information on our company, its history, news and press reports and dates and times when you will find us at fairs and exhibitions. We are already looking forward to your visit.

Have fun when surfing!


## IMPORTANT INFORMATION:

1. SOMSO Modelle are protected by copyright. The copying of SOMSO Modelle is prohibited and protected by law.

2. Close co-operation with scientific institutions ensures that SOMSO Modelle always demonstrates state-of-the-art scientific knowledge.

3. SOMSO Modelle - since 1876 highly accurate teaching aids for schools and science - are made of durable and recyclable SOMSO-Plast, except those models without the suffix 'S' e.g. A 19/1 which are produced in plaster, which is less durable.

4. Where finishes, measurements and weights have been changed this is due to technical or scientific improvements. SOMSO Modelle are delivered with a description key written in close co-operation with our scientific advisers.

5. Functional models help to explain physiological processes. All functional models are marked with  in this catalogue. Functional models are subject to wear dependent on the material from which they are made.

6. SOMSO Modelle are outstanding for their natural presentation, assembly and attention to detail.

7. SOMSO Modelle are predominantly handmade by our highly qualified and skilled workforce in Sonneberg and Coburg.

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## NATURE IS OUR MODEL

*»Only equals can recognize each other.« A memorable statement by Eckehard, the great German philosopher. Briefly it illustrates a perception and therefore reduces the main part of each learning process to a common denominator. Biology lessons are concerned, above all, with the recognition and relationship of structures.*

*Whether human, animal or plant - the closer the model or illustration is to real life, the easier the student can understand or recognise it.*

*Understanding means touching and seeing - the physical dimension joining the abstract. SOMSO Modelle offer both.*

*»Nature is our model« - with regard to production means that we are meticulous down to the smallest detail - in both form and scientific accuracy.*

*The aesthetic appeal enhances the scientific accuracy of these superb SOMSO Modelle.*

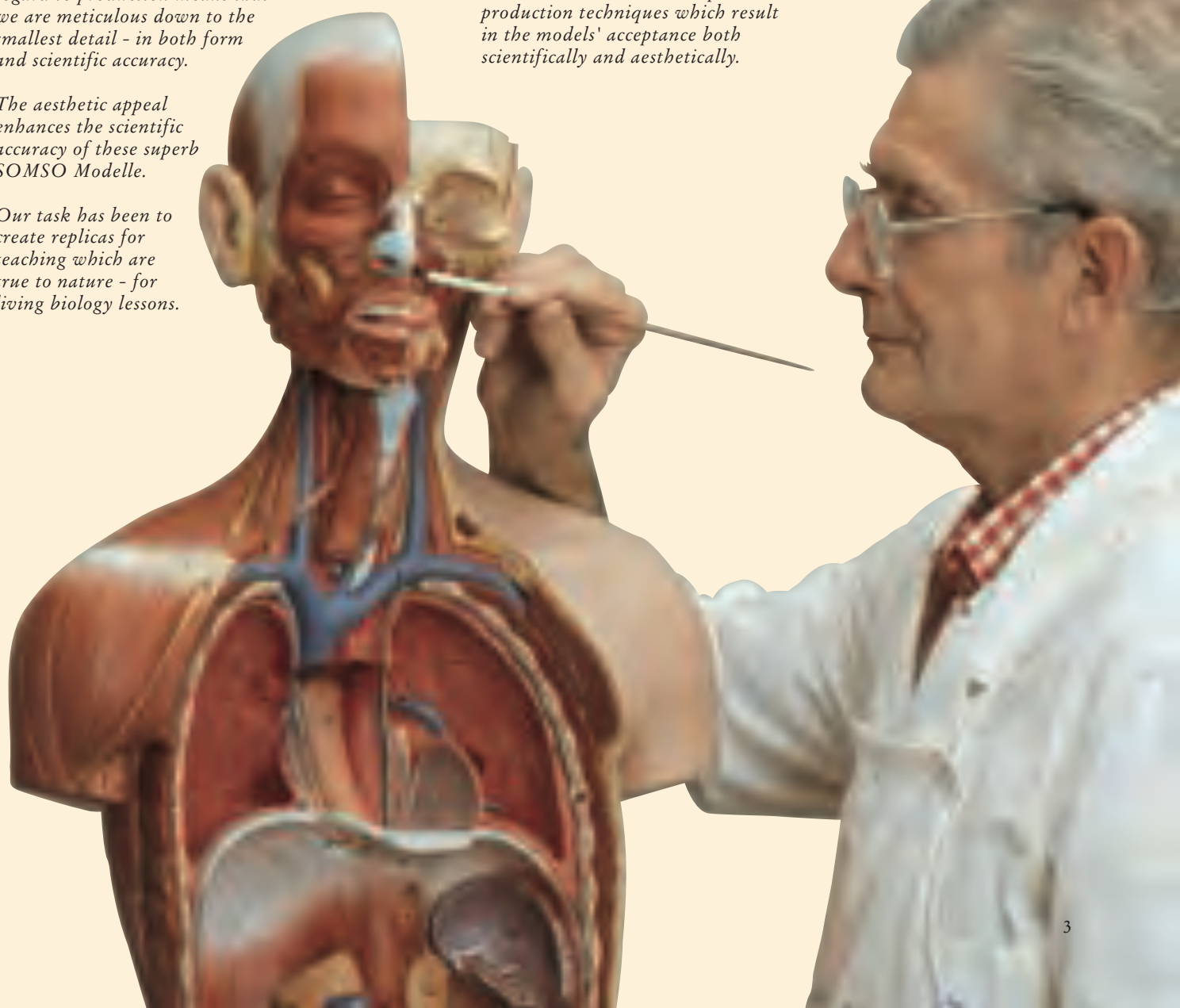
*Our task has been to create replicas for teaching which are true to nature - for living biology lessons.*

## DETAIL IN PRODUCTION

*The production of SOMSO Modelle requires great attention to detail in both specialised manufacturing techniques and basic handwork. Each model is individually hand finished by skilled craftsmen.*

*The combination of handwork and technology results in models which are far superior to those which are mass produced.*

*SOMSO Modelle owe their impressive »naturalness« to these complex production techniques which result in the models' acceptance both scientifically and aesthetically.*



## SOMSO - A FULL FIVE-YEAR GUARANTEE

*No other manufacturer in this field offers a full five-year warranty - on nearly all models - that covers both durability and workmanship.*



**SOMSO**  
**GUARANTEE**  
**5 Years**

EACH AND EVERY MODEL IN THE RANGE DEMONSTRATES SOMSO'S COMMITMENT TO THE HIGHEST STANDARDS OF SCIENTIFIC ACCURACY AND ARTISTRY.

HAND ASSEMBLY AND FINISHING BY GERMAN CRAFTSMEN

*SOMSO Models are produced only in Sonneberg or Coburg - nowhere else - by highly qualified and skilled craftsmen. Some components are now machine-made, but all models are assembled and painted entirely by hand so that each is a unique work of art.*

*From concept through prototype to limited or series production, only specialist scientists, model makers and technicians are employed to produce the highest quality models, accurate down to the finest detail.*

SOMSO MODELS - SUBJECT TO STRINGENT QUALITY CONTROLS

*SOMSO's primary concern is for quality. Quality that passes the tests for scientific accuracy, painting, function, durability and materials. Genuine SOMSO Models reflect these quality criteria, and their base material is virtually unbreakable SOMSO-Plast.*





## RANGE OF PRESENTATIONS OF SOMSO MODELS:

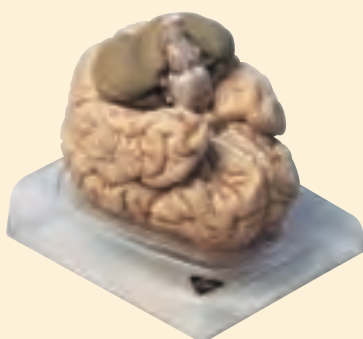
### *stands, bases, boards, measurements and description keys*

*Almost all models are shown with stands or bases on the following pages of the catalogue. How the model is supplied is described precisely in the corresponding text.*

*The differences in presentation:*



Model with removable transparent cover



Model on base, removable



Model on base and removable from stand



Model on board



Model on base



Model on base, supported on stand



Model on stand

### THE DESCRIPTIVE KEYS

supplied with the models are in different forms and languages.

The keys are written by competent scientists according to strict criteria. The keys are either supplied loose, integrated in the model or on its base depending on the actual model.



### MEASUREMENTS AND WEIGHTS

are given in the catalogue text for each SOMSO model.

The measurements are volumetric dimensions - height, width and depth of the complete model including the described stand or base.

The weights given include respective base, stand or board.

## THE SOMSO-MUSEUM IN SONNEBERG/THURINGIA

*Marcus Sommer founded the SOMSO workshop on 17th July 1876 in Sonneberg, Thuringia, Germany.*



*On the occasion of the 125th anniversary of SOMSO Modelle the Family Sommer opened the SOMSO Museum at the parent company in Sonneberg, Thuringia.*

*Here you are able to see, in 10 different stages, the variety of SOMSO Modelle and their 125-years history.*

*For further information please have a look on the Internet site [www.somso-museum.de](http://www.somso-museum.de)*



### WORLD-WIDE APPRECIATION FROM THE SCIENCE AND TEACHING PROFESSIONS AND FROM MUSEUMS

*SOMSO Models are indispensable for practical teaching of general biology in schools. The »Nature is Our Model« range is superbly instructive, particularly in its accuracy, quality and colour, enabling students to experience nature in an incomparable, hands-on manner.*

*Appropriately proportioned SOMSO Models are in use in science laboratories and lecture halls of universities and colleges throughout the world, making an important contribution to the efficient instruction of trainee doctors and nurses.*

*For many decades, SOMSO Models have been permanently displayed in private collections and public museums, and are of unique interest to specialists and lay visitors alike.*



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In addition to the ZOOLOGY + BOTANY Catalogue A 75/2+3, SOMSO offers a comprehensive range of Anatomical Models. If you would like details of these models please ask for the ANATOMY Catalogue A 75/1.



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you will find the  
complete SOMSO-  
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order with Article  
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# SOMSO offer a comprehensive range of models for veterinary medicine

THE SOMSO ZOOLOGY MODELS ARE MAINLY SHOWN ACCORDING TO THEIR CLASSIFICATION

## SUBDIVISION FOR SOMSO ZOOLOGICAL MODELS:

### VERTEBRATES

SOMSO's anatomical animal models always comply with the latest standards.



### INVERTEBRATES

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## THE WORLD OF INSECTS – A SERIES OF SOMSO MODELS.

The flea, louse, white ant, aphid, ant and fly models are the first of a series of small insect models with which comparative morphology and phylogeny can be studied.

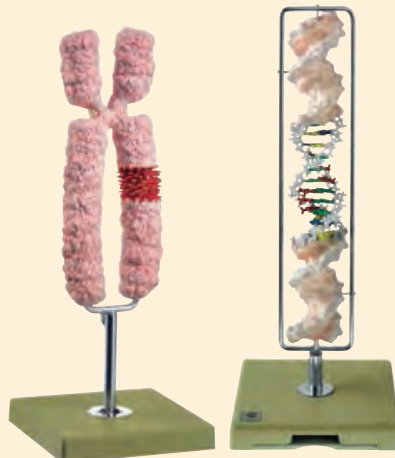


## DEVELOPMENT IN ANIMALS

Development of animals clearly presented in a series of models – from the egg to the embryo  
The »Development of the water frog (Rana esculenta) - from egg to frog«. ZoS61/1 series of models is in preparation - a unique presentation of the development of a frog. Individual models in the series: egg, ovum division, blastula, gastrula, 3 tadpole stages, frog. In addition, a basic set - egg, tadpole and frog - will be offered as an alternative at a later date.

## MOLECULAR BIOLOGY

SOMSO makes cell growth visible up to the t-RNA



## COMPARATIVE ANATOMY

The series skulls of anthropoids ZoS 50 – ZoS 53/7 as well as the chimpanzee skeleton ZoS 53/110 has been developed in co-operation with the State zoological collection in Munich.



## PROFESSIONAL TRAINING MODELS

Through the use of natural castings the pathological models for domestic animal anatomy Zo 84 – Zo 89 provide exact information for recognition of clinical pictures.



## THOROUGHBRED ANIMAL STATUETTES

A collection of thoroughbred animal statuettes by Max Landsberg and C.A. Brasch from 1936



## REALISTIC LIFE-SIZE ANIMAL MODELS

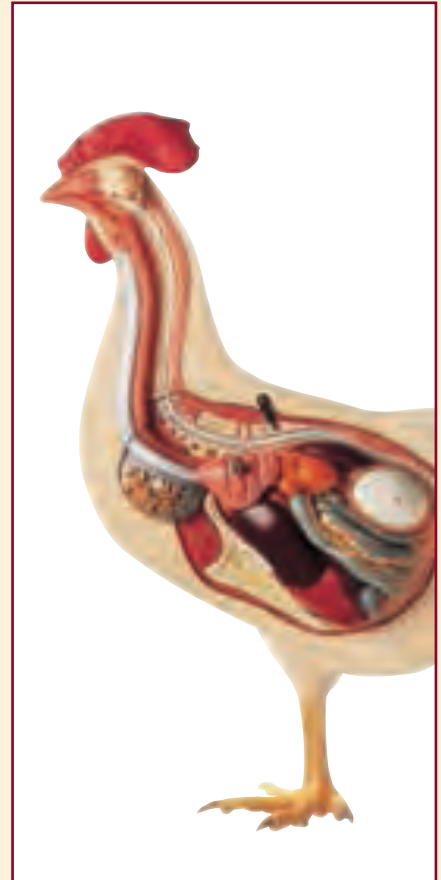
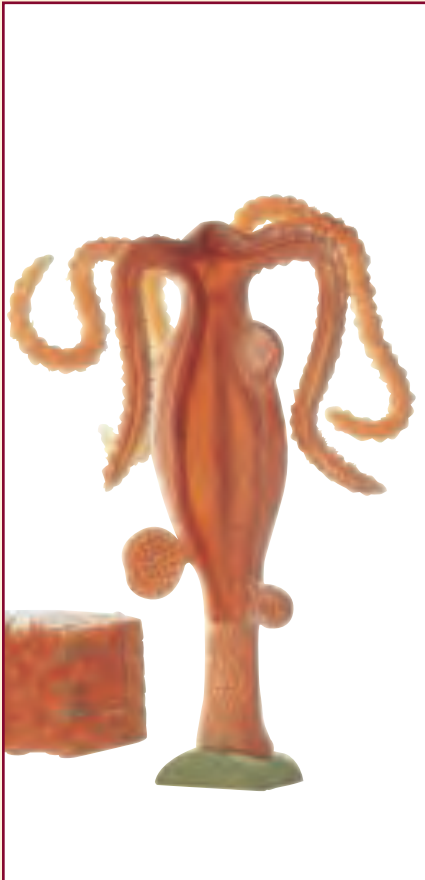
Nature is Our Model  
Amphibians and Reptiles of central Europe. A unique series of realistic, life-size animal models, produced in SOMSO-Plast and developed by Christian Groß, Head of Biology Department (retired).







SOMSO  
MODELLE  
SINCE 1876



*Anatomical animal models  
by SOMSO*

*Nature is our Model*

VERTEBRATES AND INVERTEBRATES



ZoS 1/1 VISCERA  
DETACHABLE STOMACH SEE  
ZoS 6/1

### ZoS 1 · Cow

Approximately 1/3 natural size, in SOMSO-Plast. Median section. Separates into two halves. The left side shows the hide, the right side shows the surface muscular system. Right foreleg with shoulder-blade and the biceps of the thigh are removable. The udder shows suspension, network of blood and lymphatic vessels. The organs are detachable as follows: Lungs, heart (2), small and large intestine, ruminant stomach, uterus and half of the udder. Comprises 11 parts. Mounted on a removable base with rollers. Showing the paunch puncture. Height: 54 cm., width: 85 cm., depth: 25 cm., weight: 16.8 kg.

### ZoS 1/1 · Cow

About 1/3 natural size, in SOMSO-Plast. As model ZoS 1 but with ruminant stomach detachable - rumen, reticulum, omasum, abomasum (description ZoS 6/1 page 157). Separates into 13 parts. Mounted on a removable base with rollers. Height: 54 cm., width: 85 cm., depth: 25 cm., weight: 17.5 kg.



### Zo 3 · DEMONSTRATION MODEL OF THE COW

1/4 natural size. Macroscopic anatomy shown on the left side, the right side shows the skeleton with the topography of the thoracic and abdominal intestines. Fore and hind legs removable. Separates into 3 parts. On a stand with base. Height: 44 cm., width: 66 cm., depth: 22 cm., weight: 4.3 kg.



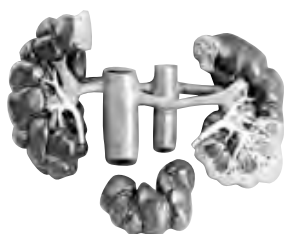
### ZoS 5 · MODELS OF SETS OF COW'S TEETH

In SOMSO-Plast. Natural casts of the lower jaw showing ten different stages of growth: 14 days, 1 year, 1 1/2 years, 2 years, 3 years, 4 years, 5 years, 9 years, 14 years, and 18 years. In one piece. Individually mounted on bases. Measurement of a single model: Height: 10 cm., width: 12 cm., depth: 12 cm., weight of the series: 1.4 kg.



### Zo 4 · NOSE OF COW

Natural size, modelled from a natural preparation. The model shows the exact anatomical structure, the bony surround, the muscles, the nasal cartilages, glands and moist part of nose. Folds and passages inside. Separates into 2 parts. On a base. Height: 25 cm., width: 25 cm., depth: 20 cm., weight: 2 kg.



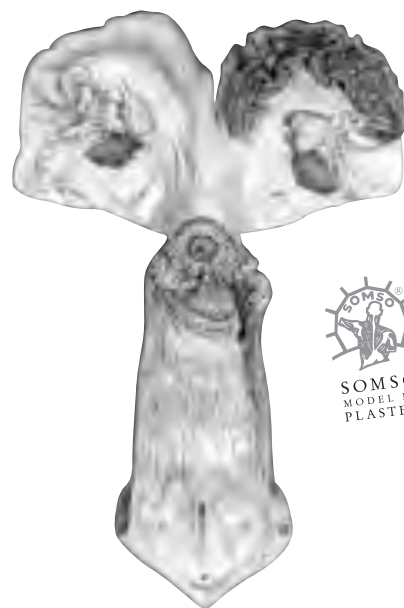
### Zo 7 · KIDNEYS OF THE COW

Natural size. With the inflowing and outflowing vessels, one kidney can be detached to show the pelvis of the kidney and the papillae. On a base. Separates into 2 parts. Height: 24 cm., width: 37 cm., depth: 8 cm., weight: 1.6 kg.



### ZoS 6/1 · RUMINANT STOMACH OF THE COW

1/3 natural size, in SOMSO-Plast. Rumen and reticulum can be divided into two halves to show the relief of the mucous membrane of the stomach. Omasum and abomasum can be opened up. Separates into 3 parts. On a stand and base. Height: 35 cm., width: 28 cm., depth: 18 cm., weight: 1.7 kg.



### Zo 8 · FEMALE GENITAL ORGANS OF THE COW

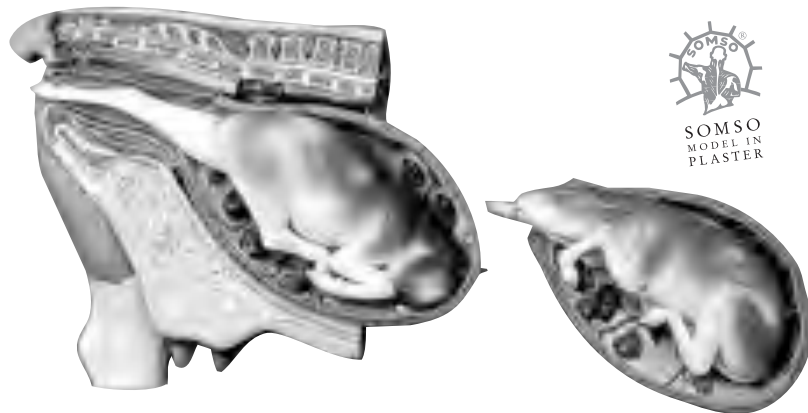
Cast from natural specimen. Horn of uterus and vagina open. In one piece. Mounted on a board. Height: 68 cm., width: 45 cm., depth: 10 cm., weight: 3.9 kg.



### Zo 9 · FEMALE GENITAL ORGANS OF THE COW

Natural size. Vagina detachable. Comprises 2 parts. On a stand and base. Height: 31 cm., width: 62 cm., depth: 34 cm., weight: 3.8 kg.





**Zo 11 · COW - FEMALE PELVIS WITH INTERCHANGEABLE UTERUS**

About 2/3 natural size. Separates into 5 parts. 1. Fetus lying head downwards and 2. Fetus lying in upright position. On a base. Height: 64 cm., width: 68 cm., depth: 32 cm., weight: 18.5 kg.



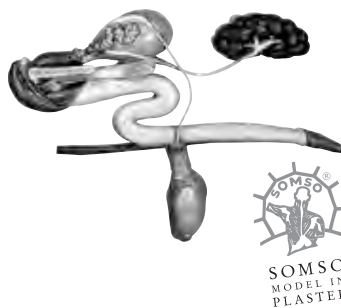
**Zo 10 · COW - FEMALE PELVIS WITHOUT FETUS**

About 2/3 natural size. Median section, uterus removable. Comprises 2 parts. On a base. Height: 65 cm., width: 46 cm., depth: 29 cm., weight: 7 kg.



**Zo 12 · UTERUS OF THE COW**

Cast from natural specimen. With removable fetus. Comprises 2 parts. Mounted on a board. Height: 30 cm., width: 48 cm., depth: 13 cm., weight: 4.1 kg.



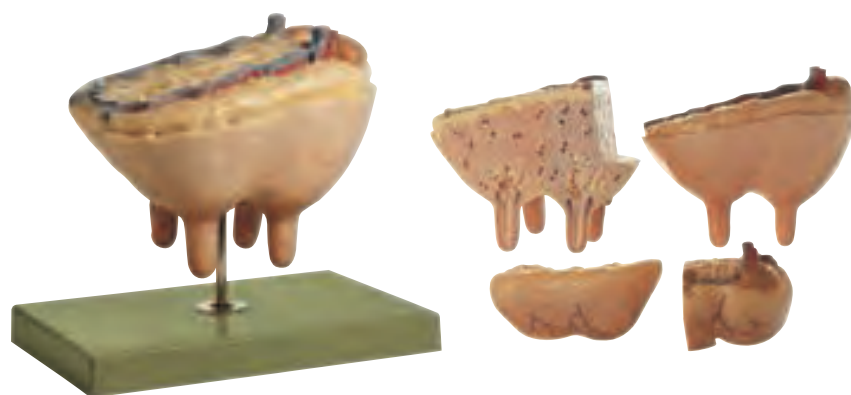
**Zo 13 · GENITAL ORGAN OF THE BULL WITH URINARY SYSTEM**

Natural size. In one piece. Mounted on a board. Height: 54 cm., width: 76 cm., depth: 11 cm., weight: 6.5 kg.



**ZoS 17 · Cow's Hoof**

Left front foot of the cow, cast from natural specimen, in SOMSO-Plast. Separates into 6 parts. On a base. Height: 34 cm., width: 14 cm., depth: 30 cm., weight: 1.3 kg.

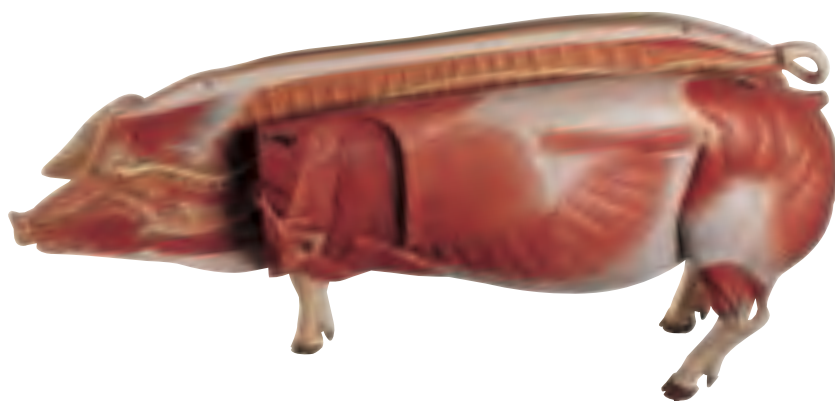
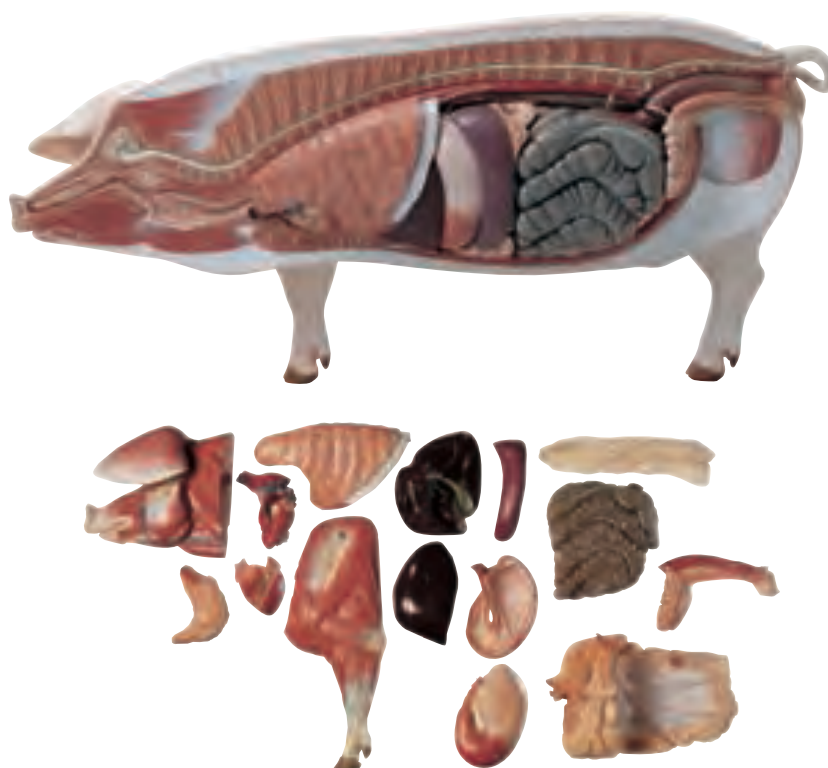


**ZoS 16 · UDDER OF THE COW**

Natural size, in SOMSO-Plast. After Prof. Dr. Vollmerhaus and Prof. Dr. Waibl. Separates into 4 parts in sagittal and vertical section, showing the arteries, veins, lymphatic vessels and milk passages and the four glandular regions. Removable. On a stand with base. Height: 35 cm., width: 39.5 cm., depth: 28 cm., weight: 5.5 kg.

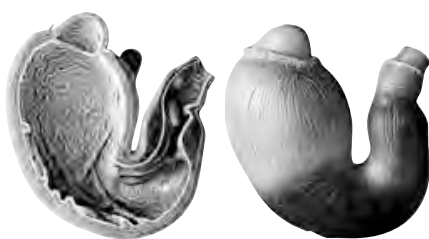
## Zo 18/1 · MODEL OF A BREEDING PIG (DAM)

Approx. 1/2 natural size, in SOMSO-Plast. Based on a breeding pig from the Bavarian State Institute for Animal Breeding in Grub. Right side shows the skin, the other side shows the muscular system. The model is mounted on a base which can be pulled out and separates into two halves medially. The left half of the head showing the muscular system, the main blood-vessels and glands (the parotid gland can be removed) as well as the auricular cartilage is removable, as is the left front leg. After separating both halves, the left side shows the thoracic and abdominal cover, the right side the thoracic and abdominal organs. Separates into 17 parts: the right half of body, left half of body, left half of head, parotid gland, left front leg, half of lungs, heart (2), liver, stomach (2), pancreas, small intestine, large intestine, renal fat and half of uterus. Height: 48 cm., width: 102 cm., (length of the model), depth: 26 cm., weight: 21 kg.



## Zo 19 · MODEL OF THE PIG FOR DEMONSTRATION

1/3 natural size. Right side shows the macroscopic anatomy of the surface, the left side the skeleton with topography of the thoracic and abdominal cavity. The fore and hind legs of the skeleton are removable. Comprises 3 parts. On a base. Height: 35 cm., width: 60 cm. (length of the model), depth: 20 cm., weight: 3.8 kg.



## Zo 21 · STOMACH OF THE PIG

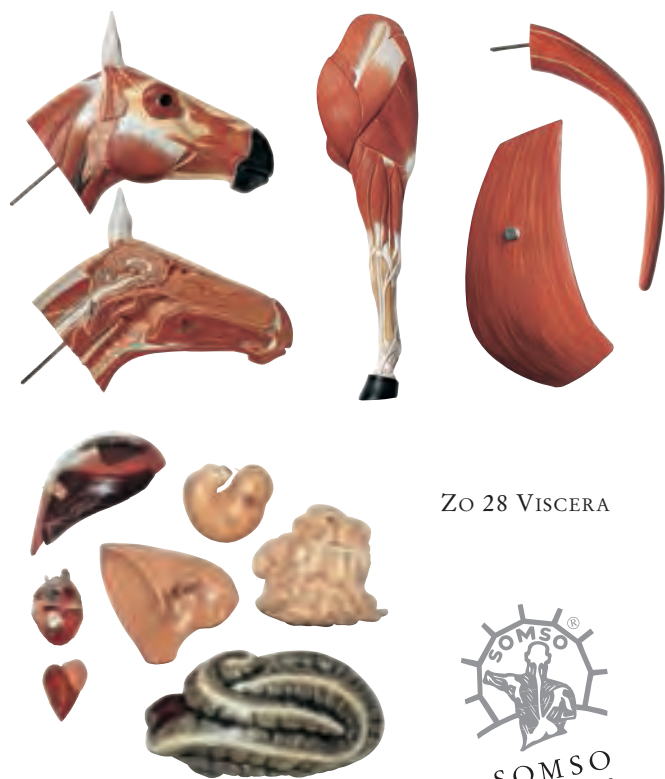
Natural size. Can be opened to show the relief of the folds of the mucous membrane. Separates into 2 parts. On a stand and base. Height: 39 cm., width: 21 cm., depth: 18 cm., weight: 1.8 kg.



## Zo 20 · UTERUS OF THE PIG WITH FETUS

Natural size, in one piece. Mounted on a board. Height: 37 cm., width: 60 cm., depth: 7 cm., weight: 2.7 kg.





ZO 28 VISCERA



ZO 28 · HORSE

Approx. 1/3 of the natural size. Shows the muscle structure on both sides, torso separated at the Abdomen. Right side of the body together with foreleg is detachable, chest and stomach organs shown in their exact topographic position as well as the male urogenital system and main blood vessels. Separates into 14 parts: right side of the body, left side of the body, right side of the head, left side of the head, left foreleg, left abdominal wall, right buttock muscle (exterior), tail, heart (2 parts), lung, diaphragm, small intestine, large intestine, stomach. On a base. Height: 84 cm., width: 10 cm., depth: 27.5 cm., weight: 16.6 kg.



ZO 29 · HORSE

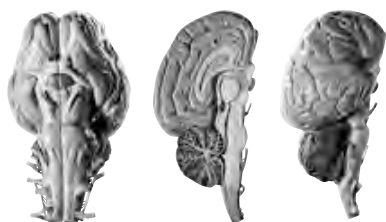
1/4 natural size. Left side shows the hide. The right side the skeleton with topography of the thoracic and abdominal organs. The skeletons of the fore and hind extremities are removable. Separates into 3 parts. On a base. Height: 60 cm., width: 68 cm., depth: 20 cm., weight: 4.1 kg.



ZOS 42/43 · HORSE'S HOOF WITH LIGAMENTS, VESSELS AND NERVES

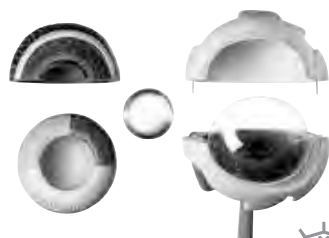
Natural size, in SOMSO-Plast. Median section. Separates into 7 parts. On a base. Height: 30 cm., width: 18 cm., depth: 26 cm., weight: 1.57 kg.





**ZO 30 ·  
BRAIN OF THE HORSE**

Natural size. Median section. Separates into 2 parts. Without base. Height (length): 12 cm., width: 15 cm., depth: 10 cm., weight: 600 g.



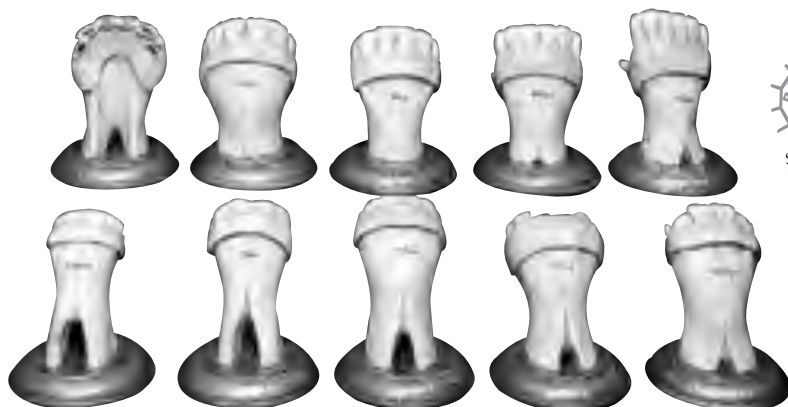
**ZO 31 ·  
EYEBALL OF  
THE HORSE**

Enlarged 5 times linearly, cut horizontally, corium, vitreous humour and lens removable. Separates into 5 parts. On a stand and base. Height: 31 cm., width: 18 cm., depth: 18 cm., diameter 16 cm., weight: 1.5 kg.



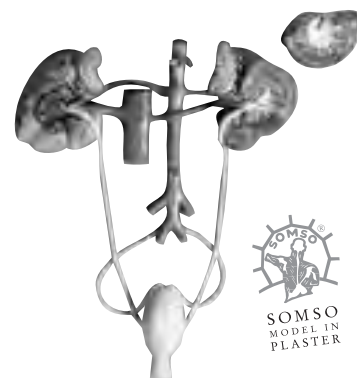
**ZO 36 ·  
STOMACH OF THE HORSE**

Natural size, separates into 2 halves. Removable from base. Height: 23 cm., width: 48 cm., depth: 36 cm., weight: 4.1 kg.



**ZO 33 · SETS OF TEETH OF A HORSE**

Natural size, modelled from the natural lower jaw showing 10 different stages of growth: at 1/2, 1, 1 1/2, 2 1/2, 3 1/2, 4, 6, 9, 12 and 18 years of age. Individually mounted on bases. In one piece. Measurements of one model: Height: 13 cm., width: 12 cm., depth: 12 cm., weight of the series 2.5 kg.



**ZO 38 ·  
URINARY ORGANS**

Of the male horse. Natural size. Kidney comprises 2 parts. Mounted on a board. Height: 59 cm., width: 44 cm., depth: 9 cm., weight: 3.4 kg.



**ZO 41 ·  
KNEE-JOINT OF THE HORSE**

Natural size. With ligaments. Separates into 2 parts. On a base. Height: 45 cm., width: 15 cm., depth: 25 cm., weight: 1.5 kg.



**ZO 39 · GENITAL ORGANS  
OF A STALLION**

Natural size. Median section. Separates into 4 parts. Removable from base. Height: 38 cm., width: 55 cm., depth: 22 cm., weight: 3.9 kg.



**ZO 40 · GENITAL ORGANS OF  
A MARE**

Modelled from a natural specimen, natural size. Vagina and horn of uterus open. In one piece. Mounted on a board. Height: 76 cm., width: 54 cm., depth: 10 cm., weight: 5.1 kg.



ZO 22 · SHEEP

Approximately 2/3 natural size. One side shows the skin the other the muscular system. The left half of the head and the left foreleg are removable. After removing the abdominal wall the topography of the thoracic and abdominal organs are displayed, made in SOMSO-Plast Separates into: left half of lung, heart (2), stomach, small intestine (2), and uterus. The trunk, the left half of the head and the left foreleg are made of plaster of paris. Comprises 11 parts. On a base. Height: 47 cm., width: 66 cm., (length of the model), depth: 27 cm., weight: 19 kg.



ZO 24 · DOMESTIC RABBIT

Natural size, after a white buck rabbit which had won many prizes. Separates into two halves medially. The right side shows the pelt, the left half the muscular system and the topography of the thoracic and abdominal intestines which are removable. Separates into 8 parts. On a base. Height: 33 cm., width: 52 cm., depth: 20 cm., weight: 5.3 kg.



ZOS 27/1 · CAT

Natural size, in SOMSO-Plast. The right side shows the hide (removable) with the skeleton below, the left side the muscular system. Separates as follows: head (median section), body with hind quarters, front quarters, lungs, heart, stomach, small intestine, tail. Comprises 9 parts. On a base. Height: 45 cm., width: 56 cm., depth: 22 cm., weight: 4.1 kg.



ZO 109 · MODEL OF A SHEEP-DOG

2/3 natural size, modelled on a prize winning sheep-dog with advice from Dr. Rummel. One side shows the coat, the other the surface muscular system. In one piece. On a base. Height: 65 cm., width: 78 cm., depth: 23 cm., weight: 9.4 kg.



ZoS 26 ·  
DOMESTIC HEN

Natural size, in SOMSO-Plast. Modelled from a natural skeleton. The right side shows the feathers; the left side the organs. By a simple operation, the torso can be taken from the feathers to show the muscular system. The following internal organs are removable: left lung, part of the liver, stomach. Comprises 5 parts. On a base. Height: 49 cm., width: 45 cm., depth: 26 cm., weight: 2.4 kg.



ZoS 115 ·  
ANATOMY OF THE  
HEAD OF A  
VENOMOUS SNAKE

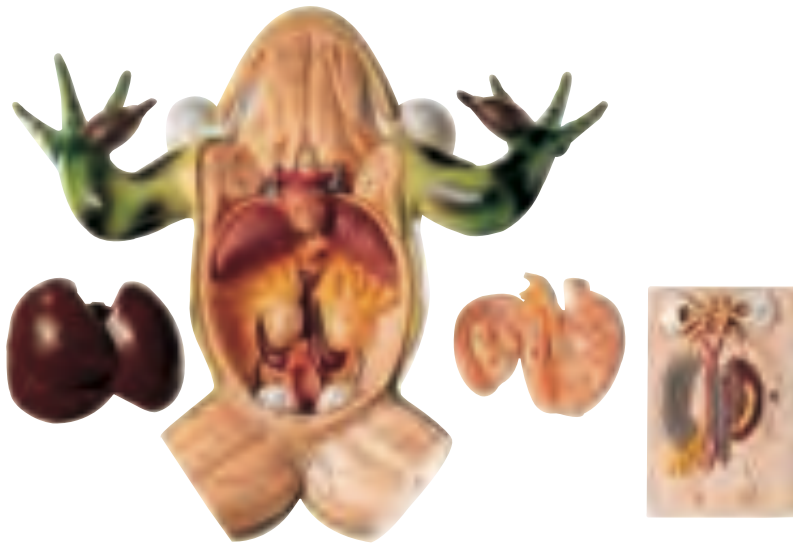
Adder, *Vipera b. berus* (Linne), enlarged approx. 15 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired), it illustrates very clearly the general construction of the head of a snake, the venom apparatus and the distinguishing characteristics of an adder. Not detachable. On a stand with base. Height: 39 cm., width: 49 cm., depth: 26 cm., weight: 1.7 kg.



ZoS 105 ·  
MODEL OF THE  
ANATOMY OF A  
BONY FISH

The model is that of a carp - *cyprinus carpio*. In SOMSO-Plast. Modelled from life in natural size. Intestines, air-bladder and testicles removable. Separates into 4 parts. On a stand with base and explanation. Height: 35 cm., width: 49 cm., depth: 15 cm., weight: 1.6 kg.





ZoS 100 · WATER FROG

*Rana esculenta*. After Christian Groß, Head of Biology Department (retired). Enlarged approx. 4 times, in SOMSO-Plast. The dorsal side of the model is mounted on a board and shows an anatomical preparation open at the ventral side of a male frog. Liver and stomach-intestine-tract are removable to show the position of the internal organs in stages. The abdominal side of the urinary and genital organs of a female water frog are shown on a supplementary model for comparison. Separates into 3 parts. Mounted on a board. Height: 39 cm., width: 62 cm., depth: 12 cm., weight: 3.9 kg.



ZoS 100/1 · WATER FROG

*Rana esculenta*. After Christian Groß, Head of Biology Department (retired). Enlarged approx. 4 times, in SOMSO-Plast. The model shows a male water frog with spread out legs and inflated vocal sacs. The back view shows the characteristics of form, colour and marking. Liver, and stomach-intestine-tract are removable to show the position of the internal organs in stages. The hind legs can be removed at the thighs. The urinary and genital organs of a female water frog are shown on a supplementary model for comparison. Separates into 5 parts. On a stand and base. Height: 58 cm., width: 42 cm., depth: 26 cm., weight: 3.9 kg.



ZoS 49 · COMPOUND OR FACET EYE

Enlarged approximately 200 times, in SOMSO-Plast. Showing the delicate histological structure. In one piece. On a stand with base. Height: 33 cm., width: 29 cm., depth: 18 cm., weight: 900 g.



ZoS 47/3 · MODEL OF THE BRAIN OF A HONEY BEE WITH TRANSPARENT HEAD CAPSULE

*Apis mellifera*. Enlarged approx. 50 times, in SOMSO-Plast. After Dr. Dorothea Brückner, University of Bremen. The capsule of the head in special plastic can be opened and the complete brain removed to study the back of the brain. Shown: ocelli, mushroom body, optical neuropile, antennal lobes, dorsal lobes and the supesophaganglion. Part of the protocerebrum can be removed to see the structures underneath. The model is mounted on a stand with base. Height: 23 cm., width: 18 cm., depth: 18 cm., weight: 830 g

ZoS 47/4 · MODEL OF THE BRAIN OF A HONEY BEE

as ZoS 47/3, but without head capsule



ZoS 47/1 ·  
MODEL OF THE WORKER BEE

Honey-bee, *Apis mellifera* (*A. mellifica*), enlarged approximately 25 times, in SOMSO-Plast. On the model one leg is removable to show the pollen basket with the collected pollen at the back. In addition the honey vesicle in connection with a piece of intestine and vesicle of droppings is removable to show the underlying sting apparatus and the venom bladder. Comprises 3 parts. On a stand with base. Height: 50 cm., width: 47 cm., depth: 15 cm., weight: 1.8 kg.



ZoS 47/2 ·  
MODEL OF THE HIND LEGS  
OF THE BEE

Functional model, enlarged many times, in SOMSO-Plast. After Dr. E. Schicha. The model illustrates the following functions: brushing of the bee's body with the pollen combs, patting down the pollen masses at the outside of the tibia, movable joint between tibia and planta. On a stand with base. Height: 34 cm., width: 18 cm., depth: 18 cm., weight: 1 kg.



ZoS 48/5 · MODEL OF A  
MOSQUITO

*Culex pipiens*. After Dr. E. Schicha. Enlarged approx. 50 times, in SOMSO-Plast. Separates into 7 parts. On a base which can be pulled apart. Height: 60 cm., width: 75 cm., depth: 65 cm., weight: 3.1 kg.



ZoS 48/1 · HEAD OF BEE

*Apis mellifica*, modelled from nature. After Dr. E. Schicha. Enlarged approx. 50 times, in SOMSO-Plast. The mouth-parts adapted for chewing and licking by the honey-bee are shown. Upper jaw movable to demonstrate its function. Separates into 2 parts. On a stand and base. Height: 34 cm., width: 18 cm., depth: 19 cm., weight: 800 g.



ZoS 48/2 · HEAD OF A BUTTERFLY

*Pieris brassicae*, modelled from nature. After Dr. E. Schicha. Enlarged approx. 50 times, in SOMSO-Plast. The proboscis is shown stretched out and coiled. Separates into 5 parts. On a stand with base. Height: 82 cm., width: 18 cm., depth: 25 cm., weight: 900 g



ZoS 48/3 · HEAD OF A GNAT

*Culex pipiens*, head of a female gnat, modelled from nature. After Dr. E. Schicha. Enlarged approx. 80 times, in SOMSO-Plast. The long stylets, consisting of the labrum (upper lip), the paired mandibles, the paired maxillae, and the hypopharynx can be put together to demonstrate the function of the stylets. In one piece. On a stand with base. Height: 40 cm., width: 18 cm., depth: 45 cm., weight: 800 g.



ZoS 48 · HEAD OF CARABUS

*Carabus auratus*, enlarged 50 times linearly, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). Lower jaw, lower lip and both antennae are removable for demonstration purposes. Simplified facet structure. Separates into 6 parts. On a base. Height: 34 cm. (without antennae), width: 33 cm., depth: 39 cm., weight: 2.7 kg.



ZoS 48/4 · HEAD OF A FLY

*Musca domestica*, modelled from nature. After Dr. E. Schicha. Enlarged approx. 50 times, in SOMSO-Plast. In one piece. On a stand and base. Height: 27 cm., width: 18 cm., depth: 20 cm., weight: 700 g.



ZoS 48/6 · MODEL OF THE HEAD OF A COCKROACH

*Periplaneta americana*. After Dr. E. Schicha. Modelled from nature. Enlarged approx. 50 times, in SOMSO-Plast. Upper jaw and maxillae are movable and mounted to demonstrate the function. Separates into 3 parts. On a stand with base. Height: 41 cm., width: 27 cm., depth: 18 cm., weight: 1 kg.





ZOS 49/14 · TERMITE

*Coptotermes acinaciformis* - A soldier Termite or "white ant". Enlarged approx. 50 times, modelled in SOMSO-Plast. After Dr. E. Schicha. In one piece. On a stand with base. Height: 24 cm., width: 10 cm., depth: 10 cm., weight: 600 g.



ZOS 49/31 · MODEL OF A FLY

*Musca domestica* - common housefly. After to Dr. E. Schicha, in SOMSO-Plast. Supplied on a stand with base. Enlarged approx. 30 times. Height: 23 cm., width: 22 cm., depth: 26 cm., weight: 500 g.



ZOS 49/32 · FLEA

*Ctenocephalides felis* - Cat flea, modelled in SOMSO-Plast. After Dr. E. Schicha. Enlarged approx. 70 times. In one piece. On a stand with base. Height: 25 cm., width: 12 cm., depth: 18 cm., weight: 500 g.



ZOS 49/20 · HEADLOUSE

*Peaculus humanus*, var. *Capitis*, in SOMSO-Plast. After Dr. E. Schicha. Enlarged approx. 70 times. In one piece. On a stand with base. Height: 17 cm., width: 20 cm., depth: 16 cm., weight: 400 g.



ZOS 49/22 · APHID

*Macrosiphum rosae* - Wingless rose aphid designed by Dr. E. Schicha, modelled in SOMSO-Plast. Enlarged approx. 80 times. In one piece. On a stand with base. Height: 16 cm., width: 24 cm., depth: 18 cm., weight: 600 g.



ZOS 47/5 · BARK BEETLE

Enlarged approx. 40 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). Enlarged and true to detail representation of the big Spruce bark beetle with eight teeth (*Ips typographus* L.). In one piece. On a stand with base. Height: 17 cm., width: 32 cm., depth: 18 cm., weight: 800 g.



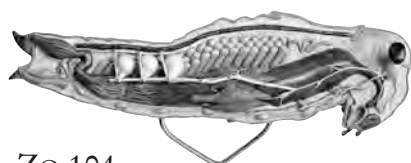
ZOS 49/27 · ANT

*Formica polycetena* - Red forest ant designed by Dr. E. Schicha, modelled in SOMSO-Plast. Enlarged approx. 30 times. In one piece. On a stand with base. Height: 16 cm., width: 11 cm., depth: 18 cm., weight: 600 g.



ZOS 47/6 · BARK BEETLE - DEVELOPMENT

Enlarged approx. 40 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). With the following phases of development: egg, 2 x young larva, full-grown larva, pupa and beetle. Separates into 5 parts. On a base. Height: 20 cm., width: 49 cm., depth: 28 cm., weight: 1.7 kg.



Zo 104 · MODEL OF THE EGYPTIAN MIGRATORY LOCUST

*Locusta migratoria*. After natural preparations, enlarged approximately 10 times. After Christian Groß, Head of Biology Department (retired). In one piece. On a stand with base. Height: 31 cm., width: 47 cm., depth: 12 cm., weight: 2.3 kg.



ZOS 49/3 · SPRINGTAIL

*Sminthurus viridis* L. (Collembola). Enlarged approximately 90 times, in SOMSO-Plast. After Dr. E. Schicha. Modelled from nature. On a stand with base. Height: 17 cm., width: 22 cm., depth: 15.5 cm., weight: 400 g.

ADVANCE NOTICE:

ZOS 122 · TICK



### ZoS 114 · STAR-FISH

Asterias, many times enlarged, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The model shows in detail: 1. Complete arm with normal position of the organs (stomach, intestinal caeca, pyloric caeca, ampullae). 2. Arm with ampullae, ring canal, Polian vesicles. 3. Skeleton of the arm with nervous system (nervering and radial nerves). 4. Arm in transverse section (ambulacral system in cross-section). The cut surface shows the stomach, stone canal, axial organ and madreporite. In addition on the outside the podia, pedicellariae and optic organs are shown. Comprises 3 parts. On a removable stand and base. Height: 31 cm., width: 53 cm., depth: 35 cm., weight: 2.2 kg.



### ZoS 118 · CRAYFISH OR PRECIOUS CRAYFISH

*Astacus astacus* (L.), structure of the body and anatomy of a male crayfish. After Christian Groß, Head of Biology Department (retired). Linearly enlarged 3 times, in SOMSO-Plast. The lifelike model shows on the left side, the differentiated external limbs; on the right side, the internal structure of the crayfish. Movable claws are detachable to demonstrate the position of the internal organs. The model is particularly valuable for demonstration. Separates into 13 parts. On a stand with base. Height: 28 cm., width: 82 cm., depth: 29 cm., weight: 4 kg.

**ZoS 116/1-3 ·  
SERIES OF MODELS SHOWING  
THE TAPE-WORM**

Consisting of ZoS 116/1, ZoS 116/2 and ZoS 116/3 in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). Weight: 4.8 kg.



**ZoS 116/1 · HEAD OF  
THE PORK TAPE-WORM OR  
ARMED TAPE-WORM**

*Taenia solium*, enlarged many times, in SOMSO-Plast. In one piece. On a base. Height: 28 cm., width: 18 cm., depth: 18 cm., weight: 800 g.

**ZoS 116/2 · HEAD OF  
THE BEEF TAPE-WORM OR  
UNARMED TAPE-WORM**

*Taenia saginata*, enlarged many times, in SOMSO-Plast. In one piece. On a base. Height: 28 cm., width: 18 cm., depth: 18 cm., weight: 900 g.

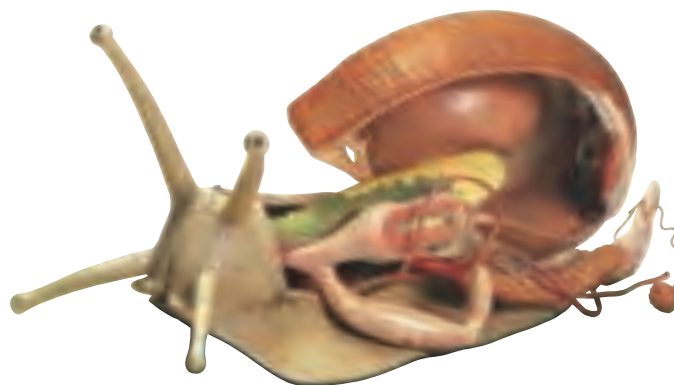
**ZoS 116/3 · MODEL-BOARD  
OF THE TAPE-WORM**

Enables comparison of the pork tape-worm, *Taenia solium* with the beef tape-worm, *Taenia saginata*. Enlarged many times, in SOMSO-Plast. The model illustrates: egg, cysticercus, some final segments in natural size and enlarged segments in varying degrees of maturation. In one piece. Mounted on a board. Height: 38 cm., width: 61 cm., depth: 10 cm., weight: 3.1 kg.



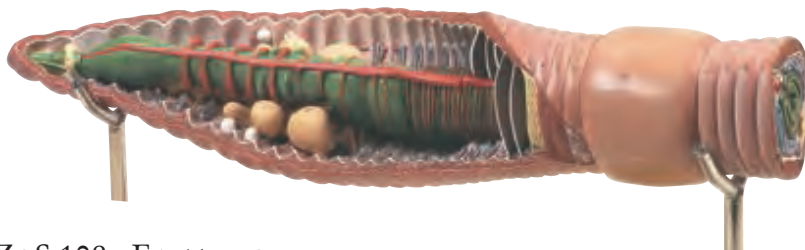
**ZoS 121 · MODEL OF A  
WATER-FLEA**

*Daphnia pulex*, in SOMSO-Plast. Female animal with summer eggs. After Christian Groß, Head of Biology Department (retired). Enlarged approx. 200 times. The 35 cm. tall transparent model shows, apart from typical characteristics such as rowing-antennae, two-leaf shell and turgor-legs, many structural details. From the right side it separates into: right shell half with second antenna, part of the right half of the body with the five turgor-legs as well as the median sectioned front third of the digestive tract; median sectioned two thirds at the back of the digestive tract, right ovary and two embryos. Separates into 6 parts. On a stand and base. Height: 50 cm., width: 42.5 cm., depth: 35 cm., weight: 2.5 kg.



**ZoS 117 · VINEYARD SNAIL**

*Helix pomatia* L., enlarged approx. 6 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The approx. 60 cm. long model is that of a crawling, edible snail. The right view shows the shell, the left, the opened snail. The lower portion of the shell as well as parts of the intestinal sac, the lungs and foot muscles are partly removed to show all important internal organs. The part lying between throat and small intestine of the intestinal canal can be removed and the cross genital apparatus can be seen completely. Separates into 4 parts. On a base. Height: 28 cm., width: 68 cm., depth: 45 cm., weight: 7.5 kg.



**ZoS 108 · EARTHWORM**

*Lumbricus terrestris*, enlarged 25 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The model shows the front third of the body with a cross section in relief. To see the inside of the stomach the intestine can be removed and the sexual organs are then also visible. The seminal vesicles are removable to show the testes and funnels of sperm ducts. Separates into 3 parts. On a stand with explanatory note on the base. Height: 25 cm., width: 53 cm., depth: 14 cm., weight: 2.2 kg.





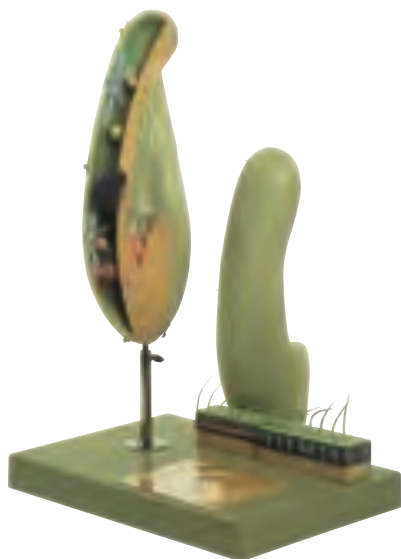
### ZOS 101 · MODEL OF A SINGLE CELL CHANGING ANIMALCULE

*Amoeba proteus*, enlarged approx. 1000 times, in SOMSO-Plast. After Prof. Dr. M. Lindauer and Christian Groß, Head of Biology Department (retired). The small pseudopodium can be opened up showing the structure after electron microscope magnification. Separates into 2 parts. On a base. Height: 8 cm., width: 48 cm., depth: 31 cm., weight: 1.8 kg.



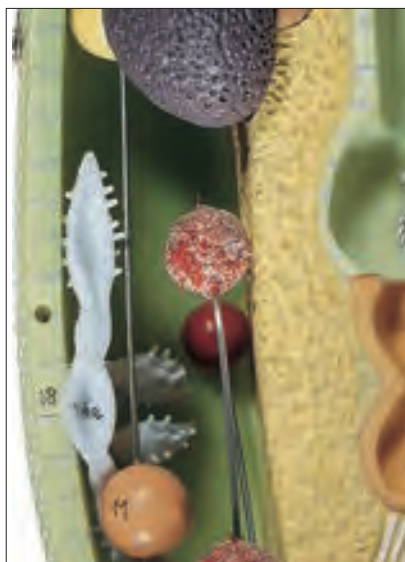
### ZOS 106 · FRESH WATER POLYP

Hydra, enlarged approx. 30 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The anatomy of the hydra is shown in longitudinal section: entoderm, mesoglea, ectoderm, male and female egg-cells, buds and mouth opening. A detailed block of the wall of the body in the region of stomach and intestine, enlarged approx. 200 times, clearly shows the microscopic structure in cross and longitudinal section, and especially the structure of the various types of cell (nematoblasts, musculo-epithelial cells, sense cells, interstitial cells and the nerve network). In one piece. On a base with explanatory notes. Height: 46 cm., width: 39 cm., depth: 33 cm., weight: 2.1 kg.



### ZOS 107 · SLIPPER ANIMALCULE

*Paramecium*, enlarged approx. 1600 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The model shows the cell of a protozoa: macro- and micronucleus, contractile vacuoles, cytostome with membranellae, myonemes and food vacuoles and the formation of the endo- and ectoplasm and the network of neuronemes. A detailed block shows the structure of the pellicle of the ectoplasm, and the position and order of the trichocysts and a range of cilia in typical order. Separates into 2 parts. On a stand with base and explanatory note. Height: 61 cm., width: 39 cm., depth: 26 cm., weight: 2.7 kg.



### ZOS 101/1 · GLOBOROTALIA MENARDII

Foramenifera plankton, in SOMSO-Plast. In co-operation with Dr. Barbara Donner. Size 0,5 mm (ø), weight: 104 g.

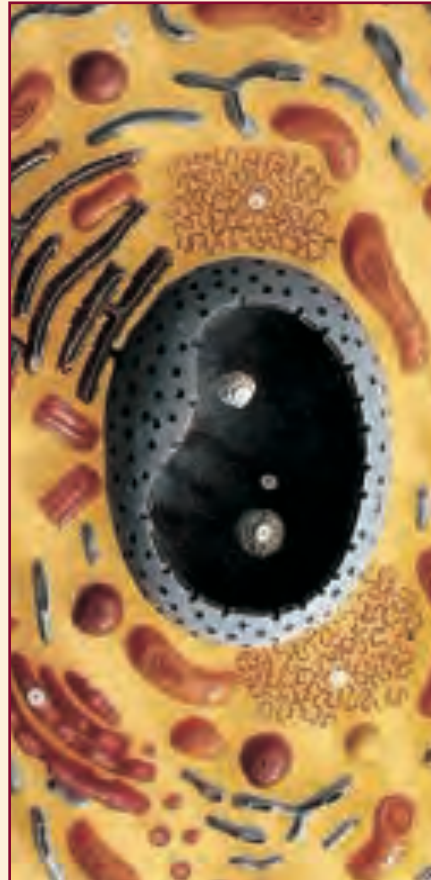


### ZOS 119 · MUSSEL

*Anodonta cygnea*, anatomical view, right half of shell - pallium half and gill removed, foot opened at the right side. After Christian Groß, Head of Biology Department (retired). Linearly enlarged 4 times, in SOMSO-Plast. The model shows the special features of the external and internal structure of a mussel. The organ systems, which are seen only with difficulty on a natural preparation, have been accentuated and schematized for educational purposes in both structure and colour. Separates into 5 parts. On a base. Height: 21 cm., width: 61 cm., depth: 38 cm., weight: 7.7 kg.



SOMSO  
MODELLE  
SINCE 1876



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DEVELOPMENT OF ANIMALS

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COMPARATIVE ANATOMY

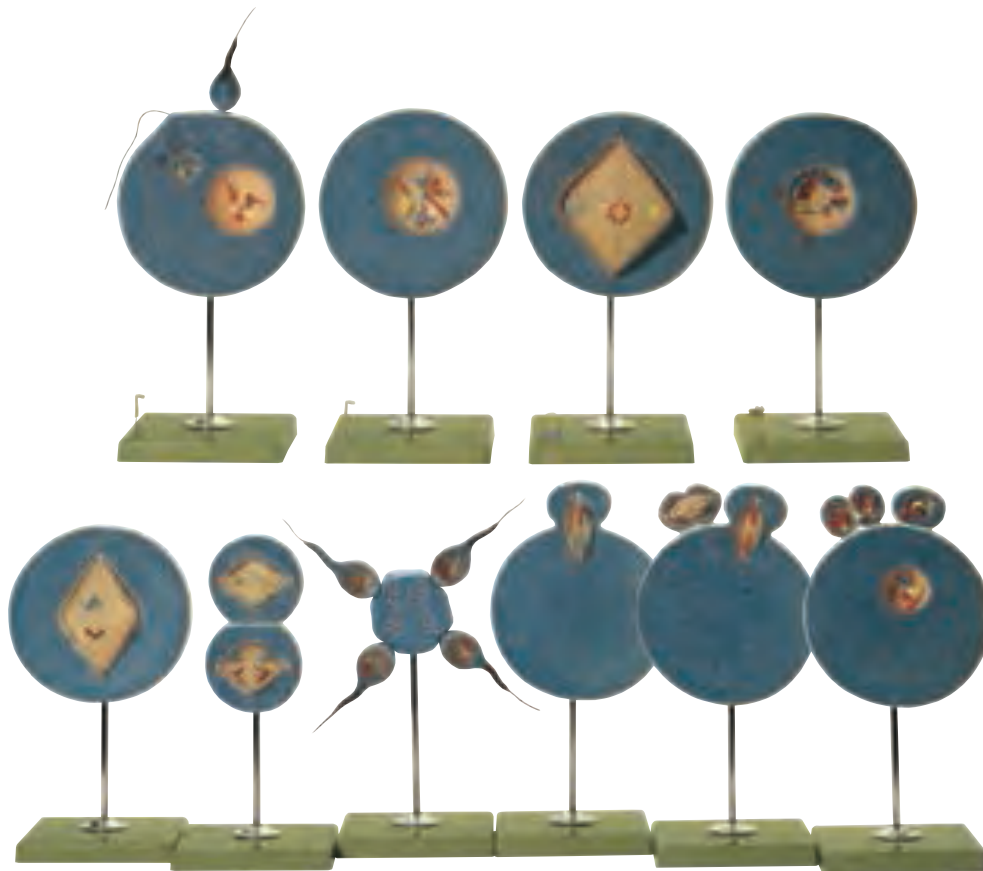
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PROFESSIONAL TRAINING MODELS

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ZOOLOGY

## ZOOLOGY 3 - DEVELOPMENT OF ANIMALS



### ZoS 57/2 · MEIOSIS

As a component of cell division, shown by 8 models with 2 explanatory introductory models, enlarged many times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The series shows the processes of meiosis in the division of chromosomes and the arrangement of genomum within cell multiplication. The crossing-over processes are not shown. In one piece. Individually mounted on a stand with base. Weight of the series: 3.3 kg.



### ZoS 57/3 · CHANGE OF NUCLEAR PHASES IN THE MATURATION OF SPERM AND OVUM (MEIOSIS)

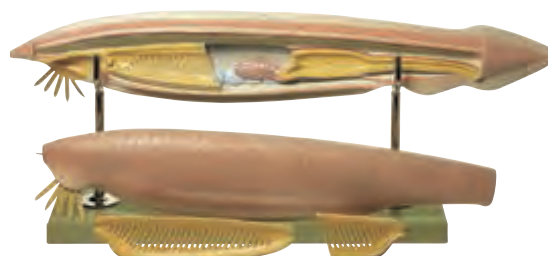
Many times enlarged, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). Chromosomes of paternal and maternal origin as well as hetero chromosomes shown in different colours. Consisting of 5 single models. Individually mounted on stand with base. Weight of the series: 2 kg.





**ZoS 59/K · LONGITUDINAL SECTION OF THE LARVA OF THE LANCELET AT THE BEGINNING OF DEVELOPMENT**

Enlarged approx. 150 times, in SOMSO-Plast. In one piece. On a stand with base. Height: 22 cm., width: 20 cm., depth: 12 cm., weight: 300 g.



**ZoS 59/M · LANCELET**

*Branchiostoma lanceolatum*, enlarged approx. 150 times, in SOMSO-Plast. The detachable model shows the structure of the body of a fully grown lancelet: floating fimbris, muscle segments, position of the gonads, the nerve-network, the chorda, intestinal and blood-vessels system. Comprises 3 parts. On a stand with base. Height: 25 cm., width: 68 cm., depth: 14 cm., weight: 3 kg.



**ZoS 59/L · LONGITUDINAL SECTION OF AN OLDER LARVA OF THE LANCELET WITH NINE ORIGINAL SEGMENTS**

Advanced development, enlarged approx. 150 times, in SOMSO-Plast. The left external membrane has been removed. In one piece. On a stand with base. Height: 21 cm., width: 25 cm., depth: 12 cm., weight: 400 g.



**ZoS 59/N · LANCELET**

Cross section through the branchia and middle intestine regions, enlarged approx. 150 times, in SOMSO-Plast. In one piece. On a stand with base. Height: 20 cm., width: 12 cm., depth: 12 cm., weight: 500 g.



**ZoS 58 · EQUAL CELL DIVISION AND THE FORMATION OF THE NUCLEAR MEMBRANE IN THE LANCELET**

*Branchiostoma lanceolatum*, enlarged approx. 500 times, in SOMSO-Plast. Nine models (A - J) on stands with bases show the various stages in cell division, the formation of the blastula and original membrane. In one piece. Weight of the series: 1.9 kg.

**ZoS 59 · LANCELET**

*Branchiostoma lanceolatum*, enlarged approx. 150 times, in SOMSO-Plast. The 4 models (K - N) show the formation of the nuclear membrane in the larva of the lancelet and its final structure in longitudinal and cross section. Individually mounted on a stand with base. Weight of the series: 4.2 kg.

**ZoS 60 · COLLECTION OF LANCELETS**

*Branchiostoma lanceolatum*, consisting of ZoS 58 (A - J) and ZoS 59 (K - N). 13 models in total, in SOMSO-Plast. Weight: 6.1 kg



### ZoS 110/1 · ANIMAL CELL

Enlarged 10,000 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). This model is confined to the presentation of the most important structures of an animal cell. Nucleus, endoplasmatic reticulum, mitochondria, ribosomes, Golgi apparatus and centrioles illustrate the principle of segmentation of this smallest animal unit of life. Scope: common study of the cell. In one piece. On a stand with base and explanatory notes. Height of the model: 22 cm., total height: 37 cm., width: 18 cm., depth: 18 cm., weight: 1 kg.



### ZoS 120 · ANIMAL CELL

Enlarged 20,000 times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). The model shows the recently discovered principles of the delicate structure of an animal cell. In addition to the organelles like nucleus, endoplasmatic reticulum, mitochondria, ribosomes respectively polysomes and Golgi apparatus, the model also shows centrioles, lysosomes and fat vacuoles. The presentation of the process of extrusion of a Golgi vesicle and pinocytic signs is shown by the cell dynamics. For teaching purposes the components of the cell are very brightly coloured to bring out the high degree of segmentation of a cell. Scope: extended view of the cell. In one piece. On a stand with base. Height: 52 cm., width: 39 cm., depth: 26 cm., weight: 3.7 kg.



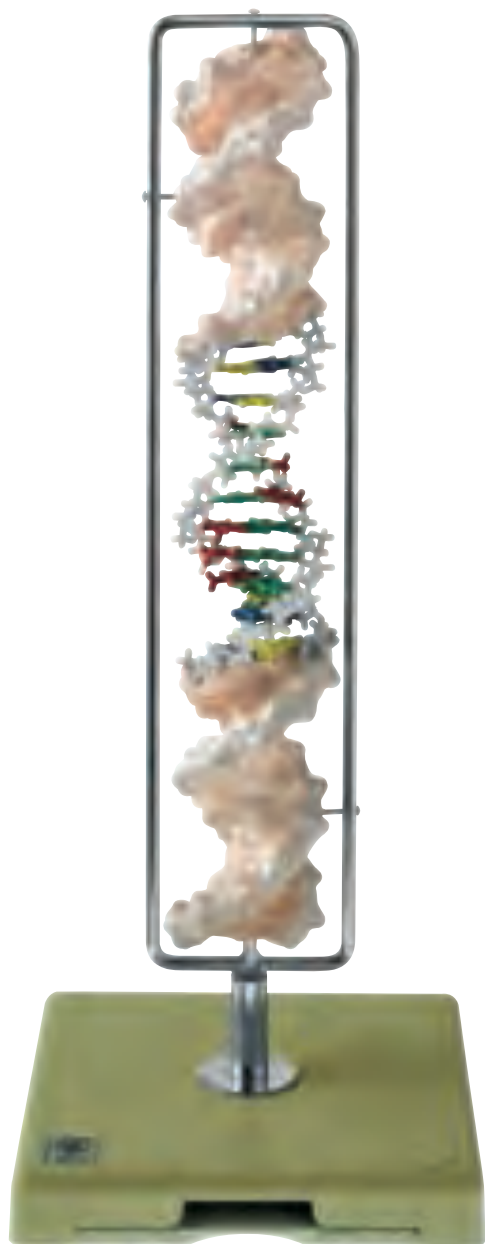
### ZoS 57 · DIVISION OF THE CELL

Enlarged many times, in SOMSO-Plast. Shown by 8 models: Prophase, metaphase, anaphase and telophase. These models allow one to follow the process of indirect division (mitosis) in the living cell, seen photomicroscopically. Individually mounted on stands, with bases. Weight of the series: 2.7 kg.



### ZoS 57/1 · MITOSIS

Enlarged many times, in SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). In 8 separate models the following phases are represented: 1. late interphase, 2. prophase, 3. beginning of metaphase, 4. metaphase - equatorial plane, 5. anaphase - migration of daughter chromosomes, 6. late anaphase, 7. telophase and 8. daughter cells in the early interphase. As shown in the models 3 - 5 the spindles and chromosomes can be revolved for demonstration purposes under a transparent cover. In one piece. The models are mounted individually on a stand with base. Weight of the series: 7.1 kg.



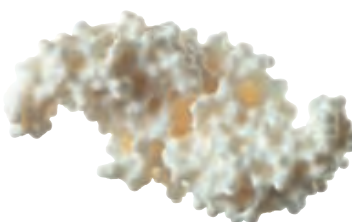
ZoS 57/20 ·  
DNA DOUBLE HELIX (TYPE B-DNA)

Scale:  $30 \times 10^6 : 1$ , in SOMSO-Plast. Developed in co-operation with Prof. Dr. H.P. Jennissen, Dr. M. Laub and Prof. Dr. G. Witt. Based on data gained from x-ray diffraction studies, the model shows a section of a DNA double helix. The conformation of this double helix corresponds to the so-called B-DNA, which is physiologically more significant when compared with the respective A or Z form. This is a matter of a clockwise double helix with 10.5 base pairs per coil and equivalent to a passage height of approx. 3.4 nm. It complies, in the main, with the model of the DNA structure developed by Watson and Crick in 1953. Although the human genome has billions of base pairs the top or bottom section of the model shows 12 base pairs, respectively, which means to say 1 coil. In one piece. Mounted on a rotating stand with base. Height: 41.5 cm., depth: 18 cm., width: 18 cm., weight: 995 g.



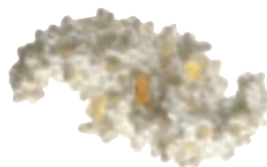
ZoS 57/4 · CHROMOSOME MODEL

In SOMSO-Plast. After Christian Groß, Head of Biology Department (retired). Enlarged 50,000 times the model shows a submetacentric (with the centromer away from the middle) metaphase chromosome. Movable from the stand with base. Height: 46 cm., depth: 18 cm., width: 18 cm., weight: 1.4 kg.



ZoS 57/10 · PROTEIN  
MODEL (HUMAN BONE  
MORPHOGENETIC  
PROTEIN BMP-2)

Scale:  $20 \times 10^6 : 1$ , in SOMSO-Plast. Developed in co-operation with Prof. Dr. H.P. Jennissen, Dr. M. Laub and Prof. Dr. G. Witt. On a stand with base. Height: 7 cm., depth: 13.6 cm., width: 7.1 cm., weight: 160 g.



ZoS 57/10-E · PROTEIN  
MODEL (HUMAN BONE  
MORPHOGENETIC  
PROTEIN BMP-2)

Scale:  $11 \times 10^6 : 1$ , in SOMSO-Plast. Developed in co-operation with Prof. Dr. H.P. Jennissen, Dr. M. Laub and Prof. Dr. G. Witt. On a stand with base. Height: 3.8 cm., depth: 7.8 cm., width: 4.4 cm., weight: 30 g.

ADVANCE NOTICE:

ZoS 57/30 · T-RNA MODEL

in SOMSO-Plast. Developed in co-operation with Prof. Dr. H.P. Jennissen, Dr. M. Laub and Prof. Dr. G. Witt. On a stand with base.





ZoS 103/1

ZoS 103/3



ZoS 103/4

ZoS 103/5



ZoS 103/2



ZoS 103

**ZoS 103 - ZoS 103/5 ·**

**SERIES OF MODELS SHOWING THE EMBRYONIC DEVELOPMENT OF THE DOMESTIC HEN**

Description as per ZoS 103 to ZoS 103/5 series of 6 models, in SOMSO-Plast. After Prof. Dr. M. Lindauer and Christian Groß, Head of Biology Department (retired). Weight of the series: 9.9 kg.

**ZoS 103/1 · GERMINAL DISC OF A FERTILISED BUT UNINCUBATED EGG**

The model shows the germinal disc in the stage of the formation of the yolk membrane - linearly enlarged 70 times, in SOMSO-Plast. In one piece. On a stand with base. Height: 45 cm., width: 28 cm., depth: 18 cm., weight: 1.4 kg.

**ZoS 103/2 · CHICKEN'S EMBRYO AFTER APPROX. 20 HOURS INCUBATION**

This model shows a section of the membrane enlarged 56 times linearly, in SOMSO-Plast. Separates into 4 parts. On a stand with base. Height: 41 cm., width: 28 cm., depth: 18 cm., weight: 1.3 kg.

**ZoS 103/3 · CHICKEN'S EMBRYO AFTER APPROX. 33 HOURS INCUBATION**

Enlarged 53 times linearly, in SOMSO-Plast. A concentric part of the embryo can be removed from the yolk, Somites and chorda are visible through a ventral window. Separates into 2 parts. On a stand with base. Height: 44 cm., width: 29 cm., depth: 18 cm., weight: 1.4 kg.

**ZoS 103/4 · CHICKEN'S EMBRYO AFTER APPROXIMATELY 50 HOURS INCUBATION**

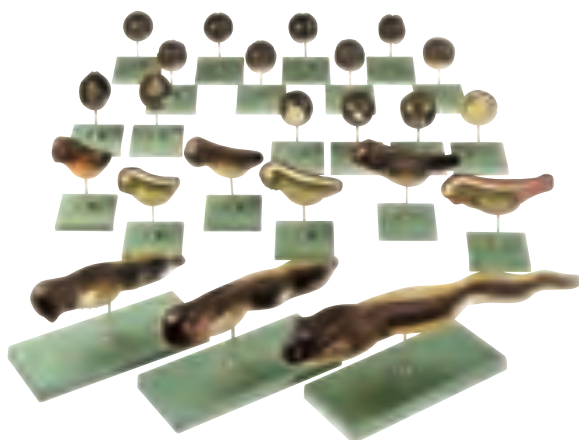
Enlarged 54 times linearly, in SOMSO-Plast. The embryo separated from the vitelline mass shows the changes of position caused by the bending of the neck and turning of the anterior body. In one piece. On a stand with base. Height: 51 cm., width: 18 cm., depth: 18 cm., weight: 900 g.

**ZoS 103/5 · CHICKEN'S EMBRYO AFTER APPROXIMATELY 4 DAYS INCUBATION**

Enlarged 45 times linearly, in SOMSO-Plast. The embryo opened on the right gives a general view of the detailed regions of the central nervous system and the structure of the cerebral nerves. In one piece. On a stand with base. Height: 45 cm., width: 26 cm., depth: 18 cm., weight: 1.4 kg.

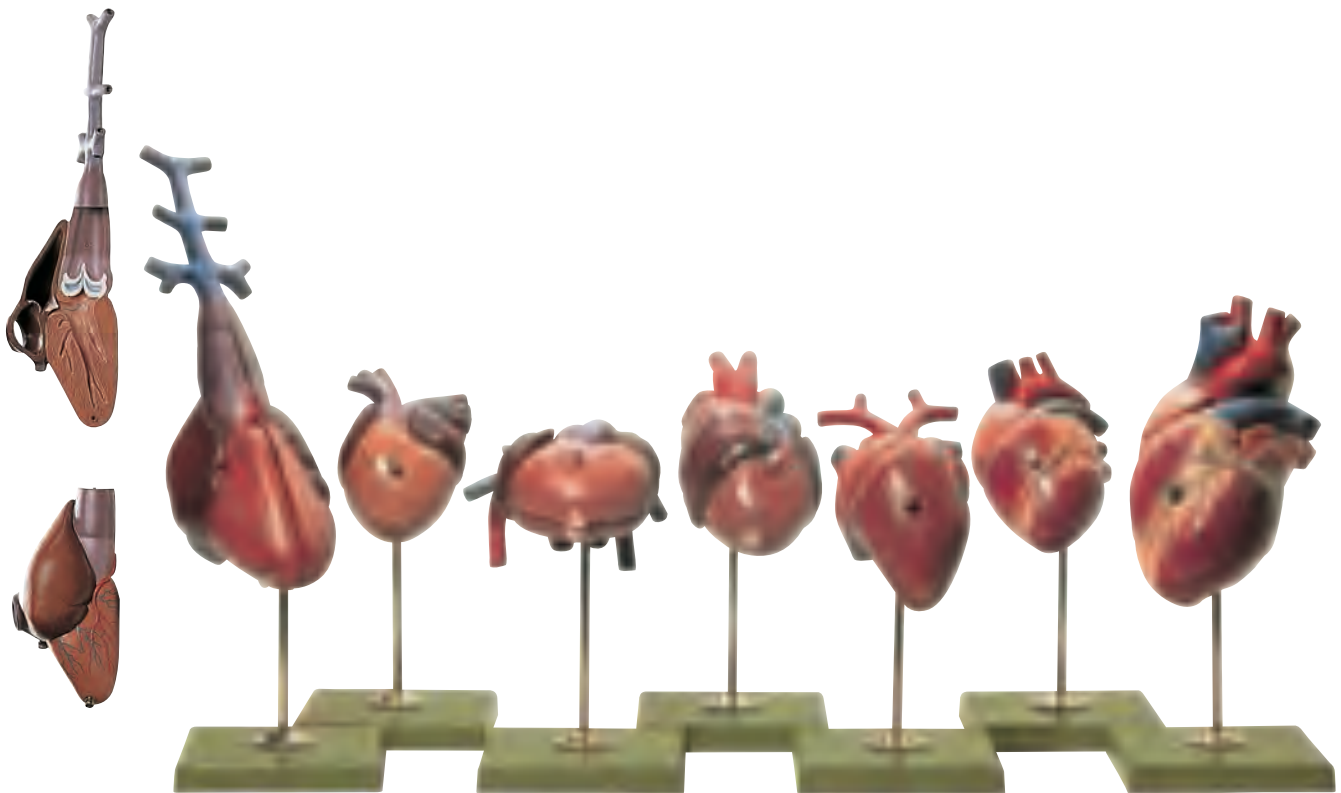
**ZoS 103 · STRUCTURE OF CHICKEN'S EGG**

The model shows an unincubated, fertilised chicken's egg, enlarged 6.5 times linearly, in SOMSO-Plast. In one piece. On a stand and base with explanatory notes. Height: 43 cm., width: 39 cm., depth: 26 cm., weight: 3.5 kg.



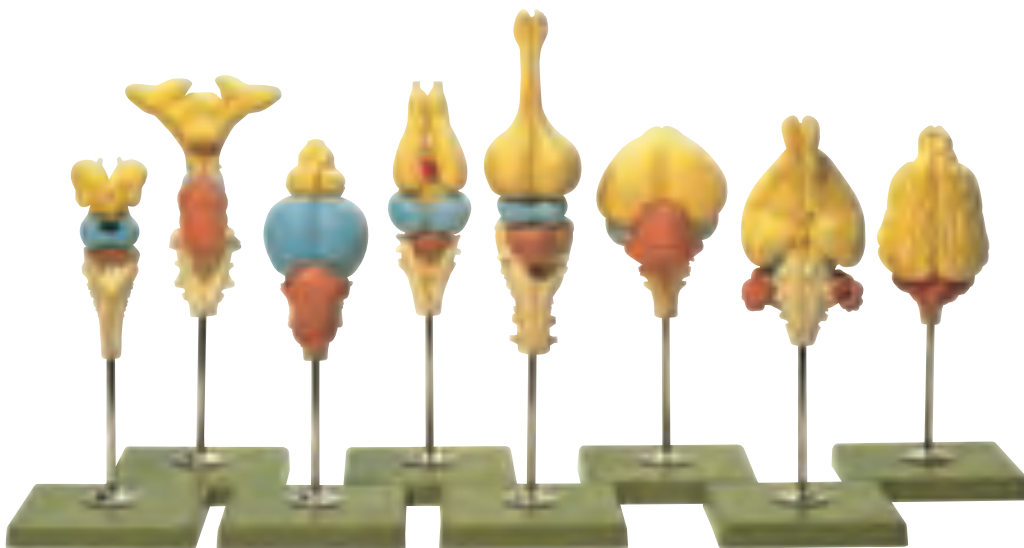
**Zo 61 · MODELS SHOWING THE DEVELOPMENT OF THE FROG**

Consisting of 23 individual models showing the development of a fertilised frog's egg to a tadpole. A new production of Ziegler models after Prof. Ecker. Enlarged approx 50 times. Diameter of a natural egg approx. 1.5 mm. A. Stages of division (8 models), B. Stages in the formation of the nuclear membrane (4 models), C. Formation of the neural channel (2 models), D. Development of the tadpole (6 models), E. Swimming tadpole (3 models). Each model individually mounted on a stand with base and in one piece. Weight of the series: 10 kg.



#### ZOS 54/1 · MODELS OF VERTEBRATE HEARTS

In SOMSO-Plast. The internal structure is shown in all its detail. The direction of the blood flow is marked. 7 models, natural size and slightly enlarged. 1. Fish (*Esox lucius*), 2. Frog (*Rana esculenta*), 3. Tortoise (*Emys orbicularis*), 4. Crocodile (*Crocodylus niloticus*), 5. Bird (Golden Eagle - *Aquila chrysaetos*), 6. Dog (*Canis lupus familiaris*) and 7. Human Being (*Homo sapiens*). Comprises 14 parts. Each model individually mounted on a stand with base. Weight of the series: 2.9 kg.



#### ZOS 55 · MODELS OF VERTEBRATE BRAINS

New edition of the Ziegler series after Prof. Dr. A. Wiedersheim. In SOMSO-Plast. The series covers the following 8 models (many times enlarged): 1. Lampetra fluviatilis, 2. Dogfish (*Scyliorhinus caniculus*), 3. Trout (*Salmo trutta fario*), 4. Frog (*Rana esculenta*), 5. Alligator (*Alligator mississippiensis*), 6. Dove (*Columba livia domestica*), 7. Rabbit (*Oryctolagus cuniculus*) and 8. Dog (*Canis lupus familiaris*). In one piece. Each model individually mounted on a stand with base. Weight of the series: 1.6 kg.



#### ZOS 55/9 · MODEL OF RAT BRAIN

Enlarged approx. 4.25 times, in SOMSO-Plast. On a stand with base. Height: 25 cm., length: 12 cm., depth: 12 cm., weight: 0.3 kg.

## ZOOLOGY 4 - COMPARATIVE ANATOMY



**ZoS 50/1 ·  
YOUNG GORILLA SKULL**

*Gorilla g. gorilla* (Savage a. Wyman 1847), male (1 1/2 years old). Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 280 g.



**ZoS 52/1 ·  
ORANG-UTAN SKULL**

*Pongo p. pygmaeus abeli* (Clark 1826), female. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 385 g.



**ZoS 52/2 ·  
SKULL OF YOUNG  
ORANG-UTAN**

*Pongo p. Pygmaeus*. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 250 g.



**ZoS 50 · GORILLA SKULL**

*Gorilla g. gorilla* (Savage a. Wyman 1847), male, in SOMSO-Plast. Natural cast. Lower jaw movable and can be removed. Weight: 1.07 kg.



**ZoS 51 · GORILLA SKULL**

*Gorilla g. gorilla* (Savage a. Wyman 1847), female. Natural cast, in SOMSO-Plast. Lower jaw movable, and can be removed. Weight: 770 g.



**ZoS 53/1 ·  
SKULL OF YOUNG  
CHIMPANZEE**

*Pan tr. troglodytes* (Blumenbach 1799). Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 160 g.



**ZoS 53/2 ·  
CHIMPANZEE SKULL**

*Pan tr. troglodytes*, female. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 500 g.



**ZoS 53 ·  
CHIMPANZEE SKULL**

*Pan tr. troglodytes* (Blumenbach 1799), male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 420 g.





**ZoS 53/3 · BABOON SKULL**

*Papio doguera*, male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 355 g.



**ZoS 53/4 · RHESUS APE SKULL**

*Macaca mulatto*, male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 160 g.



**ZoS 53/5 · TUPAIA-SKULL**

*Tupaia glis* (Diard, 1820), male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 10 g.



**ZoS 52 · ORANG-UTAN SKULL**

*Pongo p. pygmaeus* (Hoppins 1763), male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 560 g.



**ZoS 53/20 · BEAVER SKULL**

*Castor fiber* (LINNE, 1758). Natural cast in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 300 g.



**ZoS 53/7 · GIBBON SKULL**

*Hylobates syndactylus* (Raffles, 1821), male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 140 g.



**ZoS 53/6 · HOWLING MONKEY SKULL**

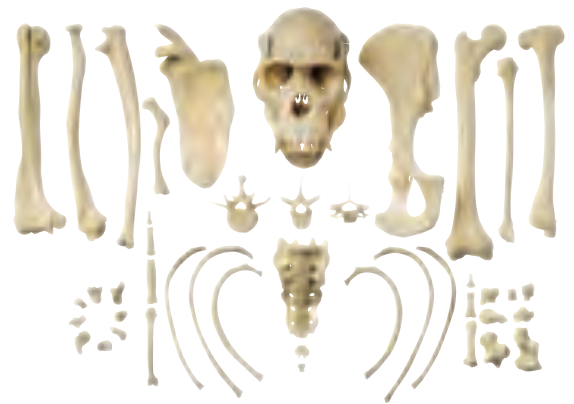
*Alouatta belzebul* (Linnaeus, 1766) male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 100 g.



ZoS 53/110 ·  
ARTIFICIAL SKELETON OF CHIMPANZEE

Pan troglodytes. Natural cast of the bones of an adult male, in SOMSO-Plast. Age: approx. 12 years. Showing life-size all the anatomical details of the bone structure. Skull with removable vault and mandible. Joints mounted and movable, upper and lower extremities removable. The right and left foot can be detached from the leg. Mounted upright on a stand. Height: 90 cm., width: 82 cm., depth: 40 cm., weight: 10.3 kg.

ZoS 53/401 ·  
ARTIFICIAL SKELETON OF CHIMPANZEE  
As ZoS 53/110, but mounted up-right on a stand.



ZoS 53/142 · COLLECTION OF TYPICAL CHIMPANZEE BONES

Consisting of skull (mounted), scapula, clavicle, humerus, radius, ulna, carpal bones, bones of the index finger, 3 each right and left ribs, one each cervical, thoracic and lumbar vertebra, innominate, sacrum, coccyx, femur, patella, tibia, fibula, tarsal bones and bones of the big toe. Supplied in plastic bags in a cardboard carton. Height: 26 cm., width: 50 cm., depth: 31 cm., weight: 3.2 kg.



ZoS 53/122 ·  
ARTIFICIAL FOOT SKELETON OF A CHIMPANZEE

Natural cast, in SOMSO-Plast. Weight: 120 g.



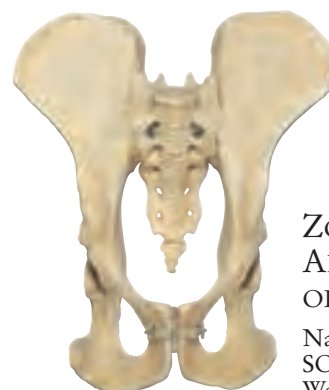
ZoS 53/131 ·  
ARTIFICIAL HAND SKELETON OF A CHIMPANZEE

Natural cast, in SOMSO-Plast. Weight: 107 g.



ZoS 53/107 ·  
ARTIFICIAL SKULL OF A CHIMPANZEE

Male. Natural cast, in SOMSO-Plast. Lower jaw movable and can be removed. Weight: 607 g.



ZoS 53/116 ·  
ARTIFICIAL PELVIS OF A CHIMPANZEE

Natural cast, in SOMSO-Plast. Weight: 640 g.



## ZO 87 · PIG'S SNOUT WITH MOUTH DISEASE

Natural cast. Mounted on a board.  
In one piece. Height: 17 cm., width:  
24 cm., depth: 18 cm., weight: 1 kg.



## ZO 88 · PIG'S HOOF WITH FOOT DISEASE

Natural cast. Mounted on a board.  
In one piece. Height: 19 cm., width:  
12 cm., depth: 12 cm., weight: 400 g.



## ZO 89 · GLANDERS IN A HORSE

Natural cast. Median section through  
the nose and throat cavities, larynx  
showing the form of the disease.  
Mounted on a board. In one piece.  
Height: 33 cm., width: 10 cm., depth:  
8 cm., weight: 3.7 kg.



## 50/5 · MODEL OF THE CARCASS OF A PIG

2/3 natural size. Produced in collaboration with the Bavarian Institute for Animal-Breeding in Grub near Munich. The model shows the carcass of a fattened pig that was slaughtered when it weighed 100 kg. Special points to notice are the length of the body, the amount of meat and the lack of fat. When cutting up the model the method recommended by the German Agricultural Society (DLG) - "simplified DLG method of cutting" has been followed. For this reason it is of special importance for all areas of the Federal Republic of Germany and spans the methods used in different parts of the country which do not always conform with the accepted way of slaughtering pigs. Separates into 8 parts. On a stand with base. Height: 119 cm., width: 38 cm., depth: 38 cm., weight: 7.5 kg.







**Zo 84 · COW'S MOUTH WITH MOUTH DISEASE**

Natural cast. Mounted on a board. In one piece. Height: 20 cm., width: 23 cm., depth: 26 cm., weight: 1.1 kg.



**Zo 85 · COW'S HOOF WITH FOOT DISEASE**

Natural cast. Mounted on a board. In one piece. Height: 22 cm., width: 18 cm., depth: 17 cm., weight: 700 g.

**Zo 86 · COW'S TONGUE WITH MOUTH DISEASE**

Natural cast. Mounted on a board. In one piece. Height: 12 cm., width: 45 cm., depth: 13 cm., weight: 700 g.



**50/6 · MODEL OF THE CARCASS OF A BULLOCK**

1/2 natural size. Produced in collaboration with the Bavarian Institute for Animal-Breeding in Grub near Munich. The model shows the left half of the carcass of a bullock that was slaughtered when it weighed 560 kg and was 15 months old. Special features are the full thigh, the broad back and the well-developed muscles in the shoulder. The carcass is symmetrical with a thin layer of surface fat covering it. The model has been cut up in portions as recommended by the German Agricultural Society (DLG). Separates into 12 parts. On a stand with base. Height: 190 cm., width: 45 cm., depth: 43 cm., weight: 15.5 kg.



## ZOOLOGY 5 - THOROUGHbred ANIMAL STATUETTES



AN EXTENSIVE SERIES OF SOMSO MODELS WHICH SHOWS, IN DETAIL, THE VARIETIES OF ANIMAL BREEDS.

THE MODELS ARE MADE OF SPECIAL PLASTER AND DELIVERED ON A BASE. SPECIAL LIST ON REQUEST.



ZO 66 · BREEDING PIG „INGRID“



ZO 67 · ENNOBLED COUNTRY PIG



ZO 66/III-12 ·  
BAVARIAN BREEDING PIG



Zo 73 ·  
MODEL OF EAST FRESIAN BREEDING BULL



Zo 74/II-9 ·  
"SCHWARZBUNTE" EAST FRESIAN COW



Zo 74/VIII-52 · HERKULES, HOLLÄNDER BULL



Zo 74/VIII-49 · HENNI, OLDENBURGER COW



Zo 69 ·  
"HÖHENFLECKVIEH" SIMMENTALER-BULL



Zo 74/II-1 · SIMMENTHALER-BULL





Zo 74/II-2 · SIMMENTHALER-COW



Zo 74/II-26 · JERSEY-COW



Zo 74/II-28 · AYRSHIRE-COW



Zo 71 · MODEL OF FRESIAN DUTCH COW



Zo 62/I-4 · BELGIAN MARE "CHARLOTTE"



Zo 62/1 · BAVARIAN WARMBLUT MARE



Zo 62/I-17 · "O BAJAR", ORIGINAL ARABIAN HORSE



Zo 62/I-18 · "GREAT HORSE"



Zo 62/I-8 ·  
DEMONSTRATION MODEL OF  
A HORSE



Zo 62/I-19 ·  
ARABIAN STALLION



SOMSO  
MODELLE  
SINCE 1876



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REALISTIC LIFE-SIZE ANIMAL MODELS

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*Nature is our Model*

ZOOLOGY





## AMPHIBIANS AND REPTILES OF CENTRAL EUROPE

A series of realistic, life-size animal models, produced in SOMSO-Plast and developed in cooperation with Christian Groß, Head of Biology Department (retired). These models are hand-painted and produced solely in Coburg and provide a valuable tool for science education.

The lifelike models are reproduced with incomparable accuracy down to the smallest detail including the underside. All the structures and surfaces correspond to the features of the original specimen.

Together with Christian Groß, Head of Biology Department (retired), SOMSO has developed the Central Europe series of Amphibians and Reptiles.



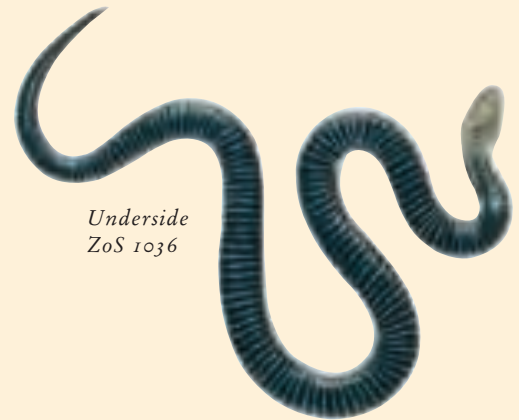
Manfred Eichler, Biology Model Maker from the SOMSO painting-department painting a life-size animal model.



Frog spawn ZoS 1008 in detail.



Underside  
ZoS 1010/1



Underside  
ZoS 1036



Underside ZoS 1006



Christian Groß, Head of Biology Department (retired), compares a living example of the red variety of the spotted fire salamander with the painted version of the SOMSO model ZoS 1001/1MRV.



All models are supplied in a transparent box with a label and description printed on the base. The measurements mentioned are the size of the box for each model.

Current scientific descriptions are used in this catalogue. Descriptions may be altered from time to time in line with scientific development.



ZoS 1000 ·  
ALPINE SALAMANDER, MALE  
*Salamandra a. atra*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1000/3 ·  
STRIPED FIRE SALAMANDER, MALE  
*Salamandra atra aurorae*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1001 ·  
SPOTTED FIRE SALAMANDER, MALE  
*Salamandra s. salamandra*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.1 kg.

ZoS 1001/RV ·  
FIRE SALAMANDER,  
RED VARIETY,  
MALE



*Salamandra s. salamandra*.  
Size of the box: Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.1 kg.



ZoS 1002 ·  
SPOTTED  
FIRE SALAMANDER,  
FEMALE  
*Salamandra s. salamandra*. Size of the box: Height 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.2 kg.

ZoS 1003 ·  
STRIPED FIRE  
SALAMANDER,  
MALE



*Salamandra s. terrestris*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1004 ·  
ALPINE NEWT,  
PAIR  
*Triturus alpestris*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.14 kg.

ZoS 1003/1 ·  
STRIPED FIRE  
SALAMANDER,  
FEMALE



*Salamandra s. terrestris*. Size of the box: Height: 7.5 cm.,  
depth: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1006 ·  
CRESTED NEWT,  
PAIR

*Triturus cristatus*.  
Size of the box:  
Height: 14 cm.,  
depth: 18 cm.,  
depth: 18 cm.,  
weight: 0.2 kg.



ZoS 1005 · PALMATE NEWT, PAIR  
*Triturus helveticus*. Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.16 kg.



ZoS 1007 ·  
SMOOTH NEWT,  
PAIR

*Triturus vulgaris*.  
Size of the box:  
Height: 14 cm.,  
width: 18 cm.,  
depth: 18 cm.,  
weight: 0.2 kg.

## ZOOLOGY 6 - REALISTIC LIFE-SIZE ANIMAL MODELS



ZoS 1008 ·  
MIDWIFE TOAD, MALE WITH  
SPAWN

*Alytes obstetricans.* Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.14 kg.

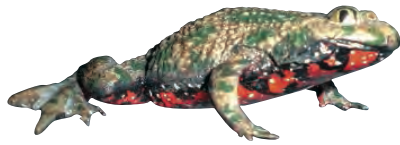


ZoS 1008/1 ·  
MIDWIFE TOAD, FEMALE

*Alytes obstetricans.* Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.13 kg.



*Underside  
see page 188*



ZoS 1010/1 ·  
FIRE-BELLIED TOAD

*Bombina bombina.* Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.1 kg.



ZoS 1011 ·  
COMMON SPADEFOOT

*Pelobates fuscus.* Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.14 kg.



ZoS 1009 ·  
YELLOW-BELLIED TOAD

*Bombina variegata.* Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.1 kg.



ZoS 1012 ·  
COMMON TOAD, MALE

*Bufo bufo.* Size of the box: Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.2 kg.



ZoS 1014 ·  
NATTERJACK

*Bufo calamita.* Size of the box: Height: 7.5 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1013 · COMMON TOAD, FEMALE

*Bufo bufo.* Size of the box: Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.2 kg.



ZoS 1015 · GREEN TOAD

*Bufo viridis.* Size of the box: Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.2 kg.





ZoS 1016/1 · COMMON TREE FROG, FEMALE (2 MODELS)

*Hyla arborea*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1016/2 · COMMON TREE FROG, FEMALE

*Hyla arborea*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1016/4 · COMMON TREE FROG, SELDOM LIGHT BLUE VARIETY, FEMALE

*Hyla arborea*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1017 · COMMON FROG, MALE

*Rana temporaria*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1018 · COMMON FROG, FEMALE

*Rana temporaria*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1019 · MOOR FROG

*Rana arvalis*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1020 · AGILE FROG

*Rana dalmatina*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1021 · POOL FROG

*Rana lessonae*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1023 · EDIBLE FROG, MALE

*Rana kl. esculenta*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1024 · EDIBLE FROG, FEMALE

*Rana kl. esculenta*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.



ZoS 1022 · MARSH FROG

*Rana ridibunda*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.2 kg.

## ZOOLOGY 6 - REALISTIC LIFE-SIZE ANIMAL MODELS

### ZoS 1027 · COMMON WALL LIZARD, MALE

*Podarcis muralis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



### ZoS 1027/1 · COMMON WALL LIZARD, FEMALE

*Podarcis muralis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.

### ZoS 1027/2 · COMMON WALL LIZARD, MALE

*Podarcis muralis nigriventris*. "East-Bavarian Danube-Population". Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



### ZoS 1027/3 · COMMON WALL LIZARD, FEMALE

*Podarcis muralis nigriventris*. "East-Bavarian Danube-Population". Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



### ZoS 1029 · VIVIPAROUS LIZARD, MALE

*Zootoca vivipara*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.12 kg.



### ZoS 1029/1 · VIVIPAROUS LIZARD, FEMALE

*Zootoca vivipara*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.12 kg.

### ZoS 1028 · GREEN LIZARD, MALE

*Lacerta viridis*. Size of the box: Height: 7 cm., width: 32 cm., depth: 19 cm., weight: 0.6 kg.



### ZoS 1028/1 · GREEN LIZARD, FEMALE (HALF GROWN)

*Lacerta viridis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.23 kg.

### ZoS 1030 · SAND LIZARD, MALE

*Lacerta agilis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.23 kg.

### ZoS 1030/1 · SAND LIZARD, FEMALE

*Lacerta agilis*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.





ZoS 1026/2 · SLOW WORM, FEMALE

*Anguis fragilis*. Size of the box: Height: 6.5 cm., width: 32 cm., depth: 19 cm., weight: 0.46 kg.



ZoS 1026 · SLOW WORM

*Anguis fragilis*. Size of the box: Height: 7.5 cm., width: 12 cm., depth: 12 cm., weight: 0.1 kg.



ZoS 1036 · COMMON VIPER, YOUNG MALE

*Vipera berus*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



ZoS 1032 · SMOOTH SNAKE, MALE

*Coronella austriaca*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.29 kg.



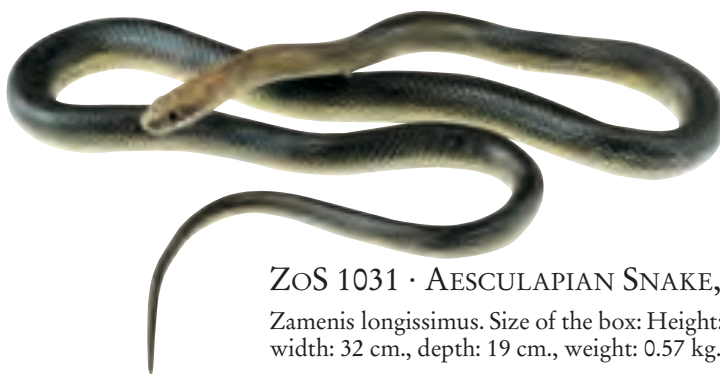
ZoS 1035 · ASP VIPER

*Vipera aspis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.4 kg.



ZoS 1036/1 · COMMON VIPER, YOUNG MELANIC

*Vipera berus*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



ZoS 1031 · AESCULAPIAN SNAKE, MALE

*Zamenis longissimus*. Size of the box: Height: 6.5 cm., width: 32 cm., depth: 19 cm., weight: 0.57 kg.



ZoS 1033 · GRASS SNAKE, FEMALE

*Natrix natrix natrix*. Size of the box: Height: 6.5 cm., width: 32 cm., depth: 19 cm., weight: 0.7 kg.



ZoS 1034 · DICE SNAKE

*Natrix tessellata*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.4 kg.



ZoS 1033/1 · BARRED GRASS SNAKE, FEMALE

*Natrix natrix helvetica*. Size of the box: Height: 6.5 cm., width: 32 cm., depth: 19 cm., weight: 0.7 kg.



ZoS 1036/2 · COMMON VIPER, ADULT MALE

*Vipera berus*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.3 kg.



ZoS 1037 · NOSE-HORNED VIPER

*Vipera ammodytes*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.33 kg.



## ZOOLOGY 6 - REALISTIC LIFE-SIZE ANIMAL MODELS



ZoS 1025 · EUROPEAN POND TERRAPIN, MALE

*Emys orbicularis*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.5 kg.

### ADVANCE NOTICE:

ZoS 1000/1 ·  
ALPINE SALAMAN-  
DER, FEMALE  
*Salamandra a. atra*

ZoS 1000/2 ·  
ALPINE SALAMAN-  
DER, 2 YOUNG  
SPECIMENS  
*Salamandra a. atra*

ZoS 1003/SV ·  
STRIPED FIRE  
SALAMANDER,  
MALE  
*Salamandra s. terrestris*.  
"Solling-Population"

ZoS 1205 · MARBLED  
NEWST, MALE AND  
FEMALE  
*Triturus m. marmoratus*

ZoS 1211 ·  
PARSLEY FROG  
*Pelodytes punctatus*

ZoS 1222 ·  
AMERICAN  
BULLFROG, MALE  
*Rana catesbeiana*

ZoS 1230 ·  
WESTERN  
THREE-TOED SKINK  
*Chalcides striatus*

## FURTHER LIFE-LIKE, SCIENTIFICALLY ACCURATE MEDITERRANEAN ANIMAL MODELS



ZoS 1025/1 · HERMANN'S TORTOISE, MALE

*Testudo hermanni*. Size of the box: Height: 10 cm., width: 18 cm., depth: 18 cm., weight: 0.5 kg.



SOMSO-Poster A 187  
»Realistic life-size Animal  
Models« on request.



ZoS 1204 ·  
MOORISH GECKO

*Tarentola mauritanica*. Size of the box:  
Height: 8 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.2 kg.



ZoS 1206 · MEDITERRANEAN CHAMELEON

*Chamaeleo chamaeleon*. On a base. Size of the box: Height: 15 cm.,  
width: 12 cm., depth: 12 cm., weight: 0.15 kg.



ZoS 1207 ·  
VINEYARD SNAIL

*Helix pomatia*. Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.1 kg.



ZoS 1208 ·  
RED SLUG

*Arion rufus*. Size of the box:  
Height: 7.5 cm., width: 12 cm.,  
depth: 12 cm., weight: 0.1 kg.



ZoS 2001 · SEA-HORSE

Hippocampus. On a glass base.  
Height: 8.5 cm., weight: 0.05 kg.

# Nature is our Model

Separable SOMSO plant models – an ever expanding collection



Nearly every botanical SOMSO model has been developed in cooperation with Prof. Dr. W. Weber.



Professor Dr. W. Weber together with Mrs. Viola Speer taking a look at the plant model BoS 22/4-E.

# Botany

List of SOMSO models according to plant system:

## CRYPTOGAMS:

- BoS 14/2 Liverwort
- BoS 14/3 Liverwort
- BoS 14/3-A Liverwort
- BoS 14/4 Horsetail
- BoS 14/4-A Common Horsetail
- BoS 14/5 Worm Fern, Prothallium
- BoS 14/5-A Worm Fern, Spore Formation
- BoS 14/6 Model of Mnium affine (Gametophyte with Sporophyte)

## ANGIOSPERMOUS PLANTS:

### A) DICOTYLEDONOUS PLANTS:

- BoS 1 Apple Flower
- BoS 2 Apple Flower – Ovary in Cross Section
- BoS 3 Apple Flower – Ovary in Longitudinal Section
- BoS 4/10 Model of Hazelnut Pollen Grain
- BoS 15/1 Salvia pratensis, Flower
- BoS 15/4 Smelling Primrose
- BoS 15/6 Real Camomile
- BoS 15/7 Model showing Germination
- BoS 15/8 Flower of the Grape Vine
- BoS 15/9 Potato Flower
- BoS 15/11 Rape, Flower
- BoS 15/12 Rape, Pod
- BoS 15/14 Rape of Willow, Male and Female
- BoS 15/14-A Willow Catkin
- BoS 15/15 Pea, Flower
- BoS 15/16 Pea, Pod
- BoS 15/19 Dandelion, Inflorescence, Individual Flower and Fruit
- BoS 15/20 Buttercup, Flower and Fruit
- BoS 15/20-A Buttercup, Flower
- BoS 15/20-B Buttercup, Fruit
- BoS 15/21 Cherry Flower
- BoS 15/33 Cacao Fruit
- BoS 17 Deciduous Leaf
- BoS 17/1 Section through the Leaf of Helleborus
- BoS 17/2 Stoma of the Lower Surface of a Christmas Rose Leaf
- BoS 21/1 Section through a Two Year Old Twig of the Lime Tree
- BoS 22 Open Collateral Vascular Bundle of a Dicotyle Plant
- BoS 22/4 Section through the Stem of a one Year Old Dicotyle Plant

- BoS 22/4-E Section through the Stem of a one Year Old Dicotyle Plant
- BoS 22/5 Young Root of the Buttercup
- BoS 22/5-E Young Root of the Buttercup
- BoS 22/6 Cross Section through the Peripheral Part of a Stem

### B) MONOCOTYLEDONOUS PLANTS:

- BoS 14/10 Helmet Orchid, Flower
- BoS 15/2 Garden Tulip, Flower
- BoS 15/3 Tulip Bulb
- BoS 15/5 Earlet of Rye
- BoS 15/7 Model showing Germination
- BoS 17/3 Maize leaf in Longitudinal and Cross Section
- BoS 18 Model of a Cross Section of a Wheat Grain as an Example of a Caryopsis
- BoS 20/2 Root tip of a Barley plant
- BoS 22/3 Section through the Peripheral Part of a Monocotyle Stem
- BoS 22/7 Root of Shallot Bulb

## GYMNOSPERMOUS PLANTS:

- BoS 15/7 Model showing Germination
- BoS 15/30 Pine, Male
- BoS 15/31 Pine, Female
- BoS 15/31-1 Pine Cone Scale
- BoS 21 Anatomical Structure of Pine Wood
- BoS 21/2 Needle Leaf of the Austrian Pine, Pinus nigra

## THE FOLLOWING MODELS ARE OF A GENERAL NATURE AND CANNOT BE CATEGORIZED ACCORDING TO PLANT SYSTEM:

- BoS 15/10 Example of not united Perianth of an Angiosperm Flower
- BoS 16 Plant Cell
- BoS 16/1 Plant Cell
- BoS 16/2 Chloroplast of Higher Plant
- BoS 19 Fertilisation of the Angiosperms
- BoS 22/1 Series of Models showing the Typical Indirect Plant Cell Division

## MICROSCOPIC FUNGI:

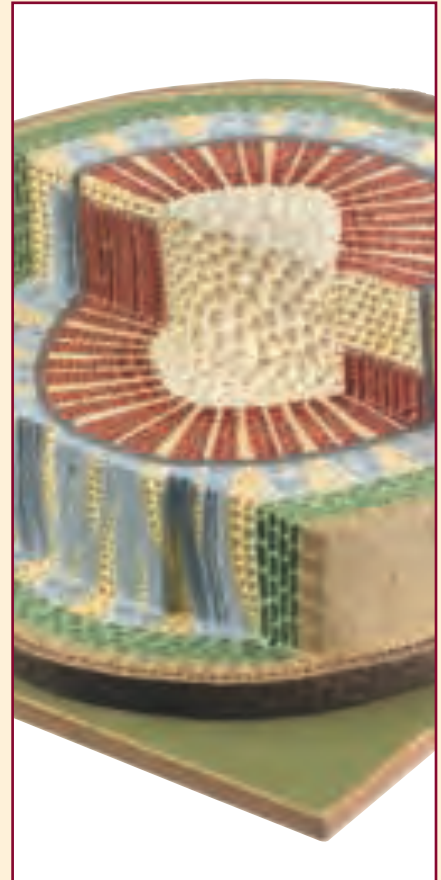
- BoS 14/1 White Mould

## FUNGI





SOMSO  
MODELLE  
SINCE 1876



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PLANT MODELS

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PLANT MORPHOLOGY

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*Nature is our Model*

BOTANY

# BOTANY 1 - PLANT MODELS

## DICOTYLEDONOUS PLANTS



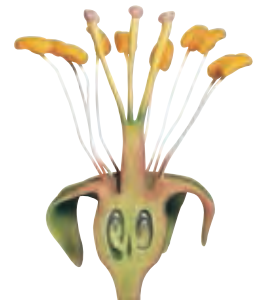
**BOS 1 · APPLE FLOWER**

*Pirus malus*, modelled from nature, enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Jung. Typical angiosperm flower, verticillate arrangement of the parts of the flower, perianth separated into calyx and corolla, petals removable to show the multiple stamen whorl and the underlying ovary with the fivefold stigma. On a stand with base and explanatory note. Separable into 6 parts. Height: 41 cm., width: 48 cm., depth: 45 cm., weight: 1.8 kg.



**BOS 2 ·  
APPLE FLOWER -  
OVARY IN CROSS  
SECTION**

*Pirus malus*, enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. On a stand with base and explanatory note. Height: 20 cm., width: 18 cm., depth: 18 cm., weight: 370 g.



**BOS 3 ·  
APPLE FLOWER -  
OVARY IN  
LONGITUDINAL  
SECTION**

*Pirus malus*, enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. On a stand with base and explanatory note. Height: 39 cm., width: 18 cm., depth: 18 cm., weight: 620 g.



**BOS 15/4 ·  
SMELLING PRIMROSE**

*Primula officinalis* (cowslip), in SOMSO-Plast. After Prof. Dr. W. Weber. Median section through two heterostyled smelling primrose flowers, enlarged approx. 13 times. The relief presentation highlights the heterostyly to facilitate cross fertilization. In one piece. On a stand and base with explanatory note. Height: 42 cm., width: 33 cm., depth: 12 cm., weight: 1 kg.



**BOS 15/6 · REAL CAMOMILE**

*Matricaria chamomilla*, inflorescence (composite), enlarged approx. 9 times, in SOMSO-Plast. Ligulate flower 20 x magnification, tubular flower 80 x magnification. After Prof. Dr. W. Weber. In one piece. On a stand with base and explanatory note. Height: 33 cm., width: 38 cm., depth: 12 cm., weight: 800 g.



**BOS 15/1 · SALVIA PRATENSIS, FLOWER**

Enlarged approx. 15 times, in SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. The mechanism of the stamens can be demonstrated. In one piece. On a stand with base and explanatory note. Height: 36 cm., width: 33 cm., depth: 18 cm., weight: 700 g.



**BOS 15/9 ·  
POTATO FLOWER**

*Solanum tuberosum*, enlarged approx. 10 times, in SOMSO-Plast, after Prof. Dr. W. Weber. Separable by removal of the ovary with pistil and stamens. The ovary is cut longitudinally and one half of the ovary with two stamens can be removed. Separable into 3 parts. On a stand with base and explanatory note. Height: 39 cm., width: 24 cm., depth: 29 cm., weight: 1 kg.



**BOS 15/10 · EXAMPLE OF A  
NOT UNITED PERIANTH OF  
AN ANGIOSPERM FLOWER**

Enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. The model shows a median section of a flower with individual removable parts. Separable into 11 parts. On a base with explanatory note. Height: 54 cm., width: 39 cm., depth: 37 cm., weight: 2.4 kg.



**BOS 15/12 · RAPE POD**

*Brassica napus*, enlarged approx. 8 times, in SOMSO-Plast. After Prof. Dr. W. Weber. This model shows the typical architecture of a cruciferous plant pod. One of the two carpels can be separated from the placenta to which the seeds are attached. The pseudo septum with the seed containing placentas are also removable. Separable into 4 parts. On a base with explanatory note. Height: 51 cm., width: 18 cm., depth: 18 cm., weight: 600 g.



**BOS 15/11 · RAPE, FLOWER**

*Brassica napus*, enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Separable into 2 parts. On a stand with base with explanatory note. Height: 34 cm., width: 28 cm., depth: 28 cm., weight: 700 g.



**BOS 15/14 ·  
WILLOW FLOWER,  
MALE AND  
FEMALE**

Enlarged approx. 80 times, in SOMSO-Plast. After Prof. Dr. Weber. In one piece. On a stand with base. Height: 35 cm., width: 33 cm., depth: 15 cm., weight: 1 kg.



**BOS 15/14-A ·  
WILLOW CATKIN**

Enlarged approx. 8 times, in SOMSO-Plast. After Prof. Dr. W. Weber. A male and a female catkin. Interchangeable and hinged. Separable into 5 parts. On a base with explanatory note. Height: 37 cm., width: 18 cm., depth: 18 cm., weight: 1.2 kg.



# BOTANY 1 - PLANT MODELS

## DICOTYLEDONOUS PLANTS



**BoS 15/15 · PEA, FLOWER**

*Pisum sativum*, enlarged approx. 9 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Separable into 3 parts. On a stand with base and explanatory note. Height: 40 cm., width: 23 cm., depth: 26 cm., weight: 850 g.



**BoS 15/16 · PEA, POD**

*Pisum sativum*, enlarged approx. 8 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Separable into 3 parts. On a stand with base and explanatory note. Height: 47 cm., width: 21 cm., depth: 18 cm., weight: 800 g.



**BoS 15/20 · BUTTERCUP, FLOWER AND FRUIT**

*Ranunculus acer*, flower enlarged approx. 10 times, fruit enlarged approx. 20 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. Flower: Height: 34 cm., width: 26 cm., depth: 26 cm., weight: 700 g. Fruit: Height: 30 cm., width: 18 cm., depth: 18 cm., weight: 600 g. Can be delivered as single models BoS 15/20-A, flower and BoS 15/20-B, fruit.



**BoS 15/19 · DANDELION, INFLORESCENCE, INDIVIDUAL FLOWER AND FRUIT**

*Taraxacum officinale*, enlarged approx. 8 times, made in SOMSO-Plast. After Prof. Dr. W. Weber. The inflorescence is longitudinally sectioned. The individual flower and fruit can be removed from the base. With explanatory note. Height: 35 cm., width: 33 cm., depth: 18 cm., weight: 1.1 kg.



**BoS 15/8 · FLOWER OF THE GRAPE VINE**

*Vitis vinifera*, enlarged approx. 50 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The corolla leaves are fused as in nature. The corolla is removable as a whole. The ovary is cut longitudinally. One part can be removed with two of the five stamens and the two ovary compartments with ovules are to be seen. Separable into 3 parts. On a stand with base and explanatory note. Height: 33 cm., width: 18 cm., depth: 18 cm., weight: 900 g.



**BoS 4/10 · MODEL OF HAZELNUT POLLEN GRAIN**

*Corylus avellana*, enlarged approx. 3800 times, in SOMSO-Plast. After Prof. Dr. Beug. In one piece. Weight: 100 g.



**BoS 15/21 · CHERRY FLOWER**

Sweet cherry, *Prunus avium*, enlarged approx. 9 times, in SOMSO-Plast. After Prof. Dr. W. Weber. One part of the cup-shaped receptacle with one sepal, two petals and a group of stamens is removable, exposing the middle ovary not grown together with the receptacle which is typical for the Prunoideae. Separable into 3 parts, on a stand with base and explanatory note. Height: 33 cm., width: 31 cm., depth: 31 cm., weight: 800 g.



**BoS 15/33 · CACAO FRUIT**

*Theobroma cacao*, natural size, made of SOMSO-Plast. According to Prof. Dr. W. Weber. Separable into 7 parts. On a base. Height: 30 cm., width: 17.5 cm., depth: 17.5 cm., weight: 2 kg.

## MONOCOTYLEDONOUS PLANTS



**BoS 15/2 ·  
GARDEN TULIP,  
FLOWER**

*Tulipa gesneriana*, enlarged approx. 4 times, in SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. One Half of the corolla can be removed to show the stamens and the pistill. The arrangement of the ovules is shown in the detachable ovary. Separable into 3 parts. On a base with explanatory note. Height: 42 cm., width: 18 cm., depth: 18 cm., weight: 1 kg.



**BoS 15/3 ·  
TULIP BULB**

*Tulipa gesneriana*, enlarged approx. 5 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The model shows the longitudinal section of a shooting tulip bulb. Separable into 3 parts. On a base with key. Height: 31 cm., width: 18 cm., depth: 18 cm., weight: 680 g.



**BoS 15/5 ·  
EARLET OF RYE**

*Secale cereale*, enlarged approx. 25 times, in SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. Separable into 4 parts to show the typical structure of an earlet of grass. On a stand with base and explanatory note. Height: 93 cm., width: 35 cm., depth: 18 cm., weight: 800 g.



**BoS 14/10 ·  
HELMET ORCHID,  
FLOWER**

*Orchis militaris*, enlarged 13 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The model depicts the complicated structure of an orchid flower. Separable into 5 parts. On a stand with explanatory note on the base. Height: 26 cm., width: 19 cm., depth: 32 cm., weight: 900 g.

## GERMINATION OF PLANTS



**BoS 15/7 · MODEL SHOWING GERMINATION**

A collection for comparing the germination of rye (10 times enlarged), bean (5 times enlarged), and spruce (20 times enlarged). In SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. The model clearly demonstrates that: 1. the rye (*Secale cereale*) seed pushes up from the soil a green shoot - monocotyle plant, 2. the bean (*Phaeolus vulgaris*) first appears as a two leaved shoot - dicotyle plant and 3. the shoot of the spruce (*Picea excelsa*) appears from the earth by unfolding their star-shaped cotyledons. Separable into 8 parts. On a base with key. Height: 37 cm., width: 54 cm., depth: 14 cm., weight: 3.7 kg.

## GYMNOSPERMOUS PLANTS

**BoS 15/31 · PINE, FEMALE**

*Pinus silvestris*, inflorescence enlarged approx. 20 times, seed scale with ovules and covering scale enlarged approx. 80 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Upper part removable. On base with explanatory note. Height: 33 cm., width: 33 cm., depth: 15 cm., weight: 1 kg.



**BoS 15/30 · PINE, MALE**

*Pinus silvestris*, flower enlarged approx. 18 times, stamen enlarged approx. 90 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a stand with base with explanatory note. Height: 33 cm., width: 33 cm., depth: 15 cm., weight: 700 g.

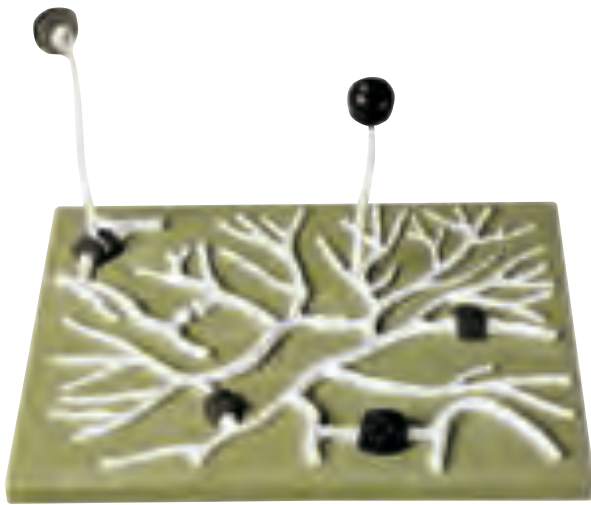


**BoS 15/31-1 ·  
PINE CONE SCALE**

*Pinus silvestris*, enlarged approx. 8 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Mature seed scale with two winged seeds. In two piece. On base with explanatory note. Height: 18 cm., width: 12 cm., depth: 12 cm., weight: 400 g.



MICROSCOPIC FUNGI, CRYPTOGAMS



BOS 14/1 ·  
WHITE MOULD

*Mucor mucedo*, enlarged approx. 250 times, in SOMSO-Plast, according to Prof. Dr. W. Weber. The model shows sexual and asexual reproduction. Separable into 3 parts. Mounted on a board with explanatory note. Height: 18.5 cm., width: 32 cm., depth: 25.5 cm., weight: 600 g.



BOS 14/2 ·  
LIVERWORT

*Marchantia polymorpha*. Antheridium, enlarged approx. 1500 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a base with explanatory note. Height: 35 cm., width: 18 cm., depth: 18 cm., weight: 1 kg.



BOS 14/3-A ·  
LIVERWORT

*Marchantia polymorpha*, enlarged approx. 10 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Thallus with three gemma cups each containing gemmae. The thallus becomes either male or female by attaching the two antheridial or two archegonial branches. One antheridial branch has been cut vertically and one part of it can be removed. Separable into 5 parts. On a base with explanatory note. Height: 19 cm., width: 26 cm., depth: 32 cm., weight: 1 kg.



BOS 14/3 ·  
LIVERWORT

*Marchantia polymorpha*. Archegonium, enlarged approx. 1000 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a base with explanatory note. Height: 36 cm., width: 18 cm., depth: 18 cm., weight: 700 g.

BOS 14/4 ·  
HORSETAIL

*Equisetum arvense*, Sporophyll with sporangium, enlarged approx. 50 times, spore with unrolled and rolled up spore bands enlarged approx. 500 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a stand with base and explanatory note. Height: 30 cm., width: 33 cm., depth: 15 cm., weight: 800 g.





## CRYPTOGAMS



### BOS 14/4-A · HORSETAIL

*Equisetum arvense*. Fertile shoot approx. 6 times, sporophyll with sporangia approx. 50 times, vegetative shoot approx. 3 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a stand with base and explanatory note. Height: 35 cm., width: 33 cm., depth: 15 cm., weight: 1 kg.



### BOS 14/5 · WORM FERN, PROTHALLIUM

*Dryopteris filix-mas*, enlarged approximately 45 times, in SOMSO-Plast. After Prof. Dr. W. Weber. One group each of antheridia and archegonia are on the underside of the prothallium, as well as numerous rhizoids that serve to anchor it to the ground. A small fern has developed from the fertilized egg cell of an archegonium. It consists of a juvenile leaf and a first root. In one piece. On a stand with a base and explanatory note. Height: 31 cm., width: 26 cm., depth: 20 cm., weight: 900 g.



### BOS 14/5-A · WORM FERN, SPORE FORMATION

*Dryopteris filix-mas*, enlarged approximately 550 times (Sporangium) / 850 times (Spore tetrad and germination), in SOMSO-Plast. After Prof. Dr. W. Weber. A sub-model shows a sporangium in the moment of opening. In addition to this, a spore tetrad and a spore germinating onto a prothallium are shown and enlarged to a greater extent. In one piece. On a stand with explanatory note on the base. Height: 30 cm., width: 18.5 cm., depth: 19 cm., weight: 950 g.

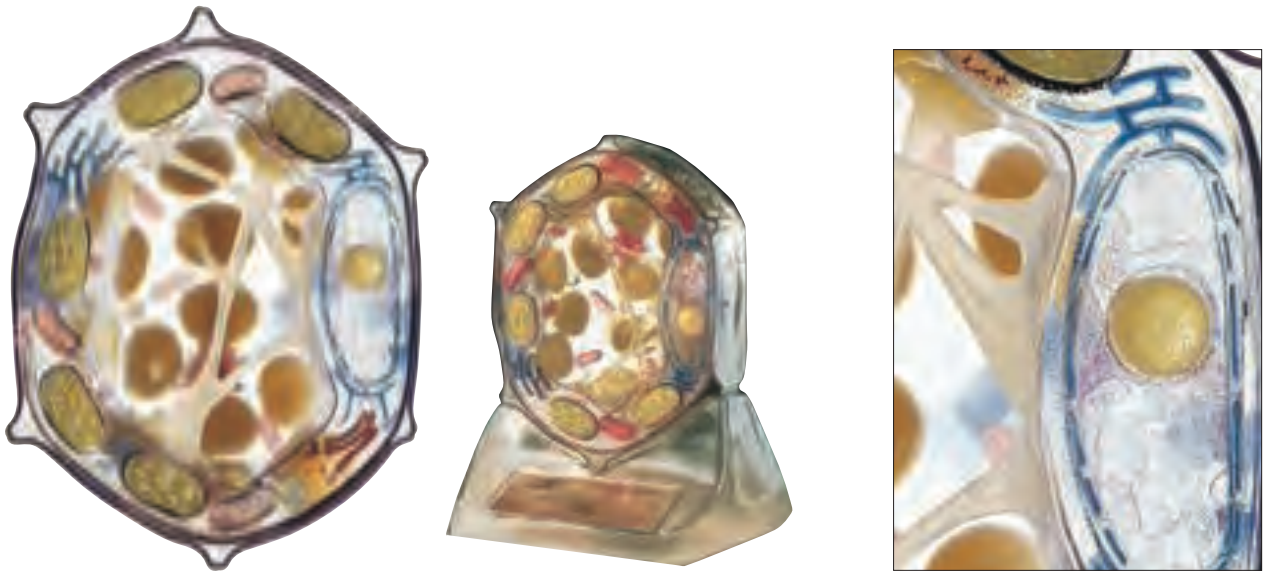


### BOS 14/6 · MODEL OF MNIUM AFFINE GAMETOPHYTE WITH SPOROPHYTE

Enlarged approx. 12 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The mature sporogonium with seta can be exchanged for an immature sporogonium with seta, an antheridium or an archegonium. The calyptra on the mature sporogonium is detachable. Comprises 6 parts. On a stand with base and explanatory note. Height: 37 cm., width: 18 cm., depth: 18 cm., weight: 700 g.

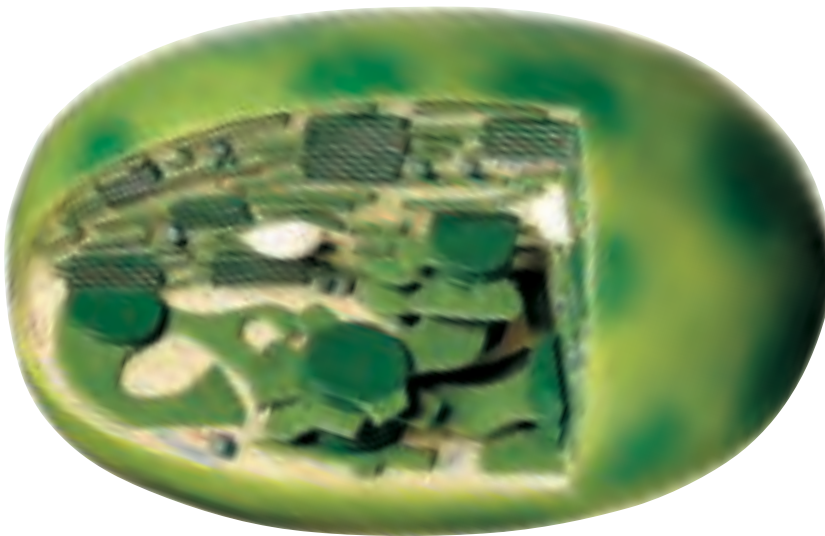
## BOTANY 2 - PLANT MODELS

### PLANT CELL



#### BOS 16/1 · PLANT CELL

Enlarged approximately 6000 times, made in special transparent plastic. After Prof. Dr. W. Weber. The model provides a slightly schematic picture of a mature cell from the assimilation tissue of a plant. It combines both light and electron microscope aspects and shows the cell components mostly with their electron fine structure. Apart from the layering of the cell wall it shows the configuration of the cytoplasm and the essential cell organelles, such as the nucleus, chloroplasts, mitochondria, endoplasmatic reticulum, dictyosomes and ribosomes. The transparent material gives an insight into the structures behind the section thus eliminating the need for dismantling the model. The stand represents the neighbouring cells. On a base with description. In one piece. Height: 36 cm., width: 31 cm., depth: 27 cm., weight: 1.7 kg.



#### BOS 16/2 · CHLOROPLAST OF HIGHER PLANT

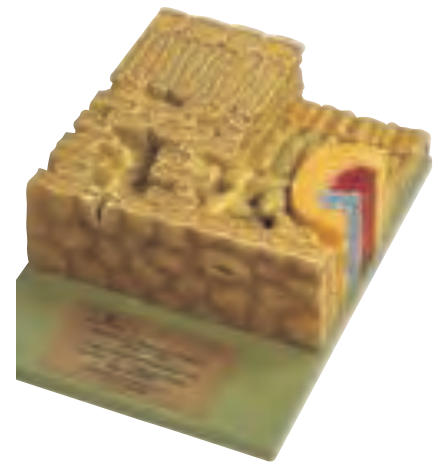
Enlarged approximately 60000 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The model shows the submicroscopic fine structure of a chloroplast on three vertical plane cross sections with the outer and inner chloroplast membrane, grain and stroma thylacoids, plastid stroma, starch inclusions and osmiophile globules. The grain thylacoid masses lie in front of the cross section planes and can be taken out together with the linking stroma thylacoids. Through the three cross sectional planes and the superimposed and removable parts, the model gives a depth of dimension as achieved when viewing cross sections through electron microscopes. Separable into 2 parts. On a stand with base and description. Height: 38 cm., width: 39 cm., depth: 26 cm., weight: 3.2 kg.

## PLANT MORPHOLOGY



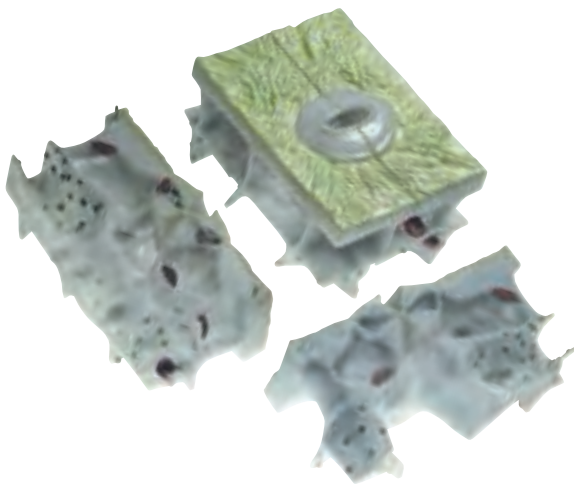
### BOS 16 · PLANT CELL

Enlarged 3000 times, in SOMSO-Plast. After Prof. Dr. W. Jung. Showing the microscopic structure. In one piece. On a base, with explanatory note. Height: 7 cm., width: 32 cm., depth: 19 cm., weight: 700 g.



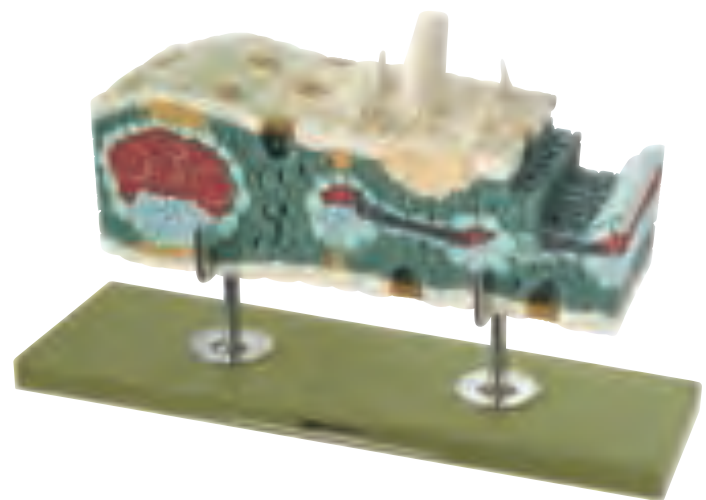
### BOS 17 · DECIDUOUS LEAF

Enlarged 700 times, in SOMSO-Plast. After Prof. Dr. W. Weber. Transverse and longitudinal sections showing the microscopic structure. In one piece. On a base plate, with description. Height: 41 cm., width: 29 cm., depth: 12 cm., weight: 2.8 kg.



### BOS 17/2 · STOMA FROM THE LOWER SURFACE OF A CHRISTMAS ROSE LEAF

*Helleborus niger*, many times enlarged, in SOMSO-Plast. After Dr. Gerlach, Botanical Institute Erlangen. Shown are guard cells, subsidiary cells, respiratory cavity. One half of the model shows the stoma, the other the function which can be demonstrated symbolically. Separable into 2 parts. Height: 23 cm., width: 45 cm., depth: 37 cm., weight: 6.6 kg.



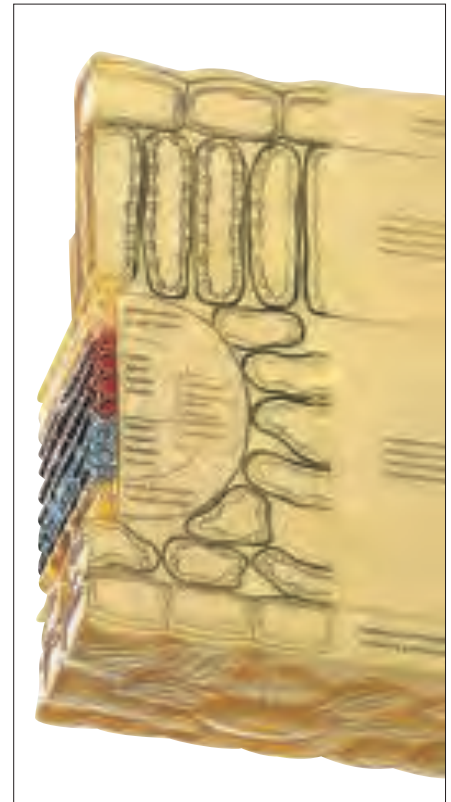
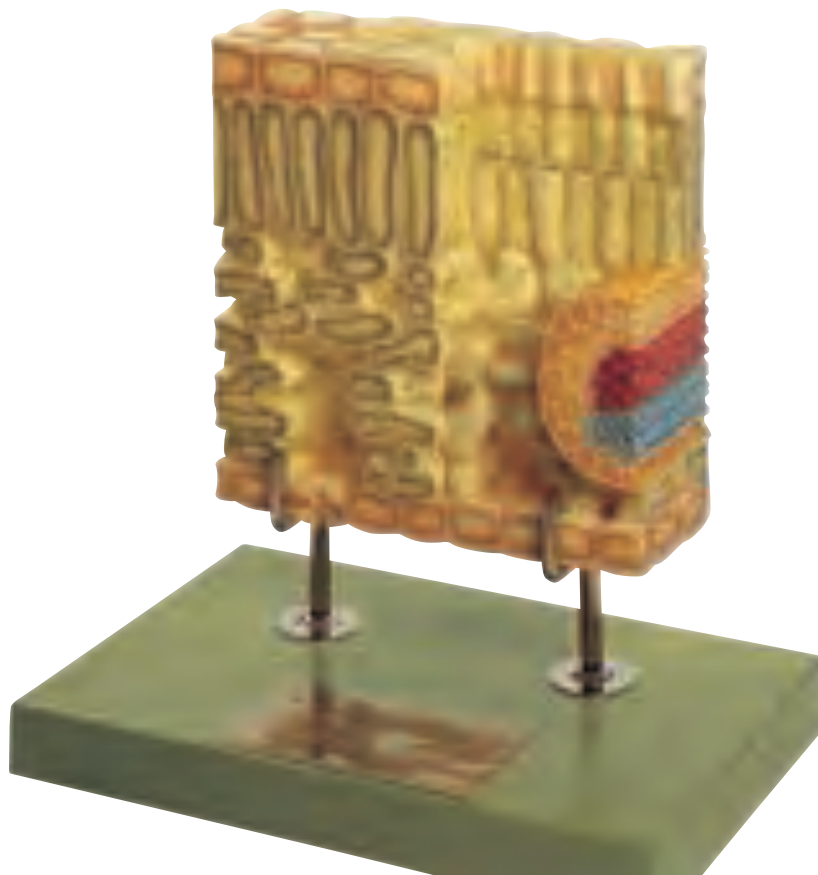
### BOS 17/3 · MAIZE LEAF IN LONGITUDINAL AND CROSS SECTION

*Zea mays*, enlarged approx. 450 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The model shows the special leaf structure of a C4 plant. The vascular bundles are enclosed by a sheath in ring form. The chloroplasts of the sheath correspond with the biochemical work appropriation in the case of photosynthesis and are clearly larger than the chloroplasts of the mesophyll cells. The vascular bundles are interlinked with each other by transversal anastomoses. In one piece, on a stand with base and description key. Height: 20 cm., width: 38.5 cm., depth: 12 cm., weight: 3 kg.



## BOTANY 2 - PLANT MODELS

### PLANT MORPHOLOGY



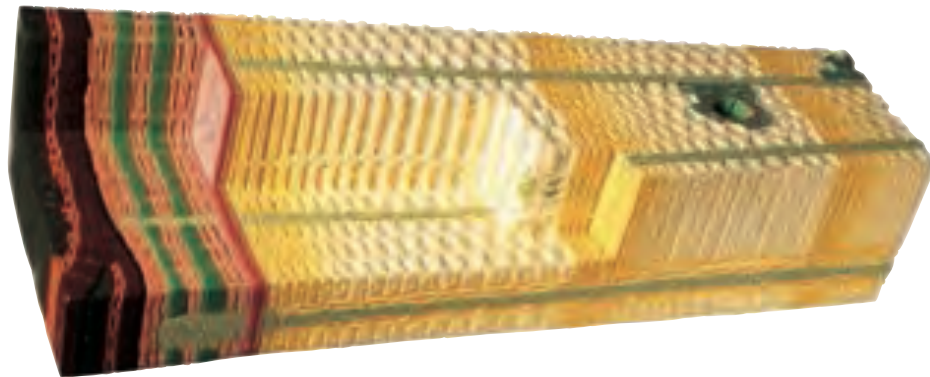
#### BoS 17/1 · SECTION THROUGH A CHRISTMAS ROSE LEAF

*Helleborus niger*, enlarged 700 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The model shows the upper epidermis with cuticula, the assimilatory parenchyma (differentiated in palisade and spongy tissue with vascular bundle) and the lower epidermis with stomata. In one piece, on a stand with base and description. Height: 40 cm., width: 39 cm., depth: 26 cm., weight: 3.4 kg.



#### BoS 18 · MODEL OF A WHEAT GRAIN AS AN EXAMPLE OF A CARYOPSIS

*Triticum aestivum* L., enlarged approx. 75 times, in SOMSO-Plast. After Prof. Dr. W. Jung. The model demonstrates a wheat grain divided longitudinally. The embryo can be removed. The cell layers of the fused fruit and seed shell are represented in cross section, longitudinal and surface section. The remainder of the pistil cushion with the »beard« is located at the tip, opposite to the basal germinal layer. Separable into 2 parts. On a stand with base and description. Height: 43 cm., width: 52 cm., depth: 26 cm., weight: 4.2 kg.



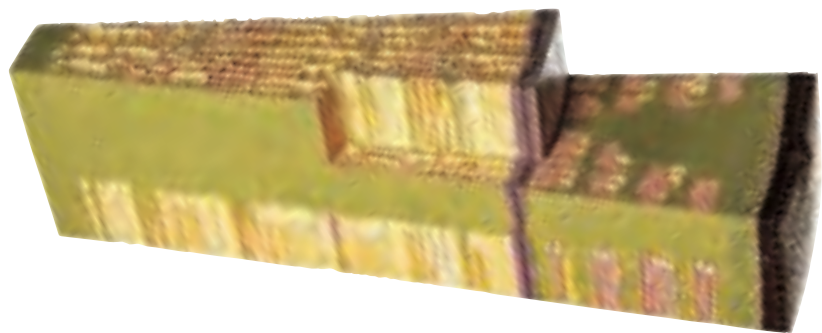
### BOS 21 · ANATOMICAL STRUCTURE OF PINE WOOD

*Pinus silvestris*, enlarged approx. 350 times, in SOMSO-Plast. After Prof. Dr. W. Jung. The model shows the anatomical structure of pine wood in various sections: transverse, radial longitudinal and tangential longitudinal through the cambium, early wood, late wood and bark. Showing all the elements of the wood structure. In one piece. On a base with description. Height: 15 cm., width: 65 cm., depth: 30 cm., weight: 5.2 kg.



### BOS 19 · FERTILISATION OF THE ANGIOSPERMS

*Polygonum*-type, enlarged 300 times, in SOMSO-Plast. After Prof. Dr. W. Jung. Longitudinal section showing ovary with germinating pollen grains and embryo sac, stamen with pollen in sagittal section. Showing in detail the microscopic structure. On a base with description key. In one piece. Height: 66 cm., width: 30 cm., depth: 14 cm., weight: 3.3 kg.



### BOS 21/1 · SECTION THROUGH A TWO YEAR OLD TWIG OF THE LIME TREE

*Tilia* sp., enlarged 350 times, in SOMSO-Plast. After microscopic slides and drawings by Prof. Dr. W. Jung. Sections through the dispersed porous type of wood show all the elements of the wood structure (transverse, longitudinal radial and longitudinal tangential). In one piece. On a base with description key. Height: 18 cm., width: 65 cm., depth: 30 cm., weight: 4.2 kg.

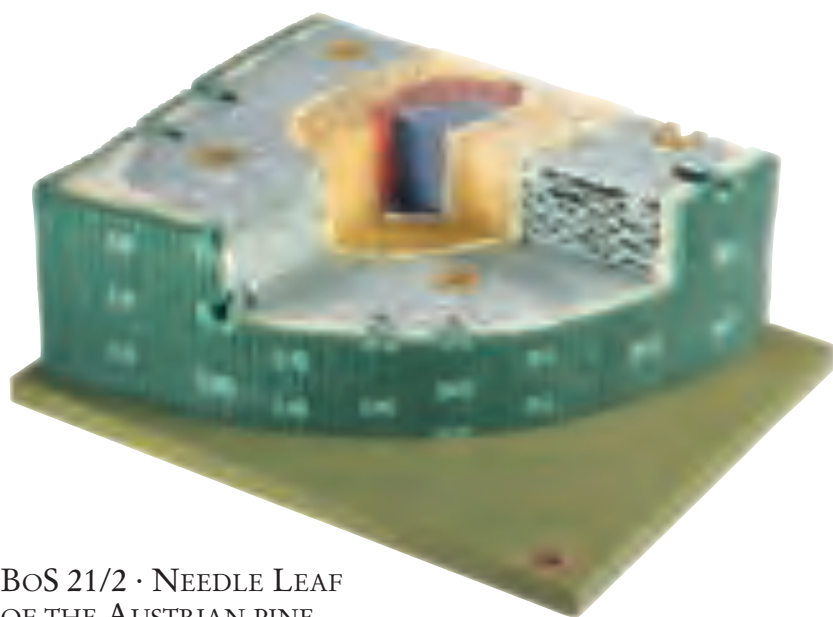
### BOS 20/2 · ROOT TIP OF A MONOCOTYLEDONOUS PLANT IN LONGITUDINAL AND CROSS SECTION

Barley, *Hordeum vulgare*, enlarged approx. 200 times, in SOMSO-Plast. After Prof. Dr. W. Weber. The root cap encloses the apical meristem. The tissues of the root body are formed by various initials: rhizodermis, root bark and central cylinder. In one piece, on a base, with description. Height: 37 cm., width: 18.5 cm., depth: 18.5 cm., weight: 1.5 kg.



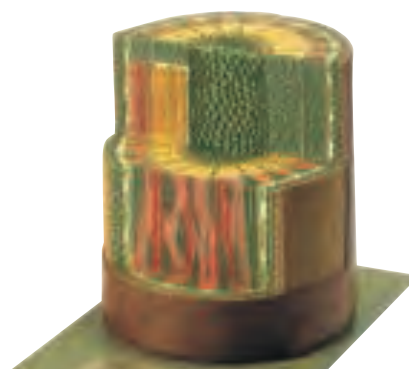
## BOTANY 2 - PLANT MODELS

### PLANT MORPHOLOGY



#### BoS 21/2 · NEEDLE LEAF OF THE AUSTRIAN PINE

*Pinus nigra*, Longitudinal and cross sections, magnified approx. 300 times. After Prof. Dr. W. Weber Separable into 3 parts. Height: 12 cm., width: 39.5 cm., depth: 28 cm., weight: 1.6 kg.



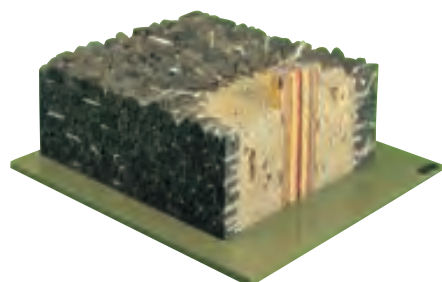
#### BoS 22/4 · SECTION THROUGH THE STEM OF A ONE YEAR OLD DICOTYLE PLANT

Lime tree, *Tilia cordata*, somewhat simplified, enlarged approx. 125 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. On a base with description. Height: 33 cm., width: 37 cm., depth: 45 cm., weight: 3.5 kg.



#### BoS 22/3 · SECTION THROUGH THE PERIPHERAL PART OF A MONOCOTYLE STEM

Maize, *Zea mays*, enlarged approx. 550 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. Mounted on a board with description. Height: 49 cm., width: 30 cm., depth: 12 cm., weight: 2.8 kg.



#### BoS 22/5 · YOUNG ROOT OF THE BUTTERCUP

*Ranunculus acer*, sectional model, enlarged approx. 300 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. On a base with description. Height: 22 cm., width: 46 cm., depth: 49 cm., weight: 5.8 kg.



#### BoS 22 · OPEN COLLATERAL VASCULAR BUNDLE OF A DICOTYLE PLANT

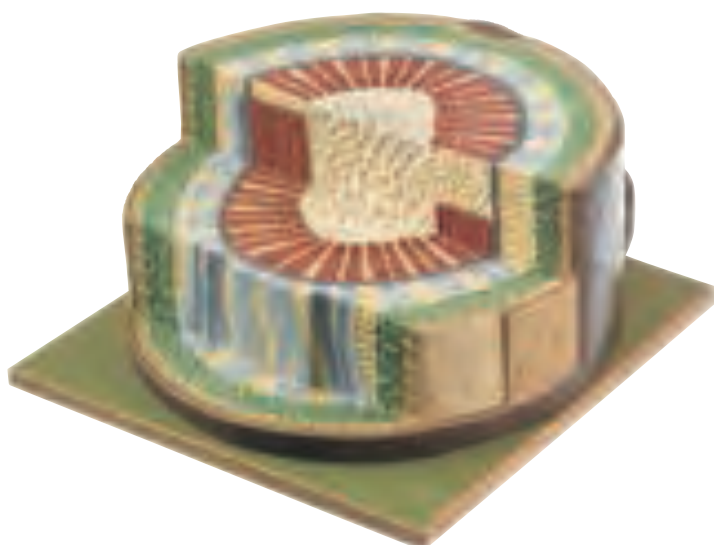
Enlarged approx. 550 times, in SOMSO-Plast. After Prof. Dr. W. Jung. In one piece. On a base with explanatory note. Height: 13 cm., width: 32 cm., depth: 26 cm., weight: 1.4 kg.





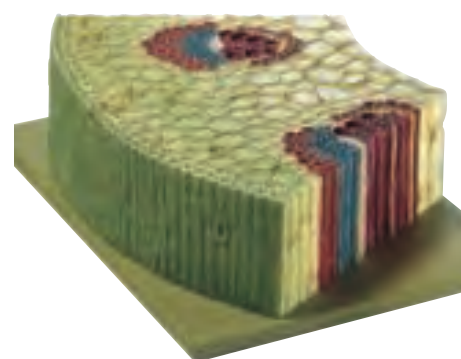
**BO 22/1 · SERIES OF MODELS SHOWING THE TYPICAL INDIRECT PLANT CELL DIVISION**

Enlarged approx. 4500 times, after Prof. Dr. W. Jung. Shown in the cells of the root of the onion (*Allium cepa*). Models are made due to double-stained microscopic slides (nucleus stained by haematoxylin-Heidenhain and plasma by eosin). Comprises 6 individually mounted models. In one piece. On a stand with base. Weight of the series: 3.6 kg.



**BOS 22/4-E · SECTION THROUGH THE STEM OF A ONE YEAR OLD DICOTYLE PLANT**

Lime tree, *Tilia cordata*, somewhat simplified, enlarged approx. 125 times, in SOMSO-Plast. After Prof. Dr. W. Jung and Prof. Dr. W. Weber. In one piece. On a base with description. Height: 20 cm., width: 37 cm., depth: 25 cm., weight: 2.8 kg.



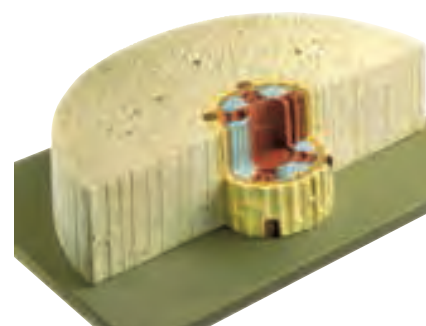
**BOS 22/6 · CROSS SECTION THROUGH THE PERIPHERAL PART OF THE STEM OF THE CREEPING BUTTERCUP**

*Ranunculus repens*. After Prof. Dr. W. Weber. Enlarged approximately 450 times, in SOMSO-Plast. In one piece. On a base. Height: 49 cm., width: 30 cm., depth: 12 cm., weight: 2.8 kg.



**BOS 22/5-E · YOUNG ROOT OF THE BUTTERCUP**

*Ranunculus acer*, sectional model, enlarged approximately 300 times, in SOMSO-Plast. After Prof. Dr. W. Jung and re-worked by Prof. Dr. W. Weber. In one piece. On a base. Height: 10 cm., width: 40 cm., depth: 28 cm., weight: 2.2 kg.



**BOS 22/7 · ROOT OF SHALLOT BULB**

*Allium ascalonicum*, enlarged approx. 350 times, in SOMSO-Plast. After Prof. Dr. W. Weber. In one piece. On a base with description. Height: 10.5 cm., width: 39 cm., depth: 28 cm., weight: 1.8 kg.

# SOMSO offers a comprehensive range of Fungi Models

SOMSO FUNGI MODELS ARE NATURAL CASTS - THE PAINTING IS STRIKINGLY REALISTIC. MOUNTED IN NATURAL SURROUNDINGS - CORRECTLY AND SCIENTIFICALLY LABELLED

LISTED ALPHABETICALLY:

## A

BoS 44 Agaricus Arvensis  
BoS 181 Agaricus Bitorquis  
BoS 26 Agaricus Campester  
BoS 224 Agaricus campester  
Bo 182 Agaricus Hortensis  
Bo 87 Agaricus macrosporus  
Bo 162 Agaricus Placomycus  
Bo 67 Agaricus Silvaticus  
Bo 145 Agaricus Silvicola  
Bo 64 Albatrellus confluens  
BoS 78 Albatrellus Ovinus  
Bo 90 Albatrellus pes-caprae  
Bo 139 Aleuria Aurantia  
Bo 222 Amanita Caesarea  
BoS 66 Amanita Citrina  
BoS 41 Amanita Muscaria  
BoS 72 Amanita Pantherina  
BoS 23 Amanita Phalloides  
BoS 25 Amanita Phalloides  
BoS 228 Amanita Regalis  
BoS 40 Amanita Rubescens  
Bo 117 Amanita spissa  
Bo 190 Amanita strobiliformis  
Bo 111 Amanita vaginata  
BoS 207 Amanita Verna  
BoS 208 Amanita Virosa  
BoS 24 Armillariella Mellea  
BoS 62 Armillariella Mellea  
Bo 103 Aspropaxillus giganteus

## B

Bo 89 Boletus appendiculatus  
Bo 77 Boletus calopus  
Bo 95 Boletus cavipes  
BoS 31 Boletus Edulis  
BoS 225 Boletus Edulis  
Bo 84 Boletus Erythropus  
BoS 141 Boletus Luridus  
Bo 142 Boletus radicans  
BoS 53 Boletus Satanus  
BoS 166 Boletus Satanus,  
Huge Specimen

## C

Bo 91 Calocera viscosa  
Bo 160 Calocybe Gambosa  
Bo 131 Calvatia excipuliformis  
Bo 138 Camarophyllum pratensis  
BoS 28 Cantharellus Cibarius  
Bo 58 Cantharellus tubaeformis  
Bo 97 Cantharellus xanthopus  
Bo 196 Chalciaporus piperatus  
Bo 116 Chroogomphus rutilus  
Bo 242 Clathrus Archeri  
Bo 202 Clavaria rugosa  
Bo 128 Clavariadelphus ligula  
Bo 189 Clavariadelphus Pistillar

Bo 193 Clavulina cinerea  
Bo 217 Clavulina cristata  
Bo 197 Clavulinopsis argillacea  
Bo 191 Clitocybe geotropa  
Bo 231 Clitocybe Odora  
Bo 107 Clitocybe vibecina  
Bo 98 Clitopilus prunulus  
Bo 198 Collybia asema  
Bo 186 Collybia fusipes  
Bo 124 Collybia maculata  
Bo 175 Coprinus alamentarius  
BoS 130 Coprinus Comatus  
Bo 115 Cortinarius armillatus  
Bo 239 Cortinarius croceus  
Bo 214 Cortinarius crocolitus  
Bo 210 Cortinarius delibutus  
Bo 238 Cortinarius limonius  
Bo 119 Cortinarius mucosus  
Bo 236 Cortinarius rubellus  
Bo 235 Cortinarius splendens sp.  
Bo 240 Cortinarius stillatitius  
Bo 211 Cortinarius subfulgens  
Bo 42 Cortinarius traganus  
Bo 174 Cortinarius varius  
BoS 59 Craterellus Cornucopiodes

## D

Bo 102 Daedalea quercina  
Bo 132 Dermocybe  
cinnamomealutca  
BoS 226 Development of Hat Fungi

## F

Bo 147 Fistulina hepatica  
Bo 150 Flammulina velutipes

## G

Bo 88 Ganoderma lucidum  
Bo 170 Geastrum Quadrifidum  
Bo 169 Geastrum Rufescens  
Bo 149 Geastrum Sessile  
Bo 37 Gomphus clavatus  
Bo 164 Group of Big Yellow  
Boletus  
Bo 136 Gymnopilus sapineus  
BoS 153 Gyromitra Esculenta  
Bo 155 Gyromitra Infula  
Bo 134 Gyroporus Cyanescens  
Bo 237 Gyroporus cyanescens

## H

Bo 154 Helvella Crispa  
Bo 65 Hydnum Repandum  
Bo 232 Hydnellum ferrugineum  
Bo 168 Hygrocybe conica  
BoS 49 Hygrophoropsis Aurantiaca  
Bo 206 Hygrophorus hypothejus  
Bo 108 Hyrpeyce psittacina  
Bo 177 Hypholoma Capnoides  
Bo 75 Hypholoma Fasciculare  
Bo 50 Hypholoma sublateritium

## I

Bo 167 Inocybe fastigiata  
BoS 156 Inocybe Patouillardi  
BoS 159 Inocybe Patouillardi

## K

BoS 230 Kefir-Mushroom  
BoS 63 Kuehneromyces Mutabilis

## L

Bo 80 Laccaria amethystina  
BoS 51 Lactarius Deliciosus  
Bo 143 Lactarius fuliginosus  
Bo 126 Lactarius helvus  
Bo 144 Lactarius mammosus  
Bo 83 Lactarius necator  
Bo 86 Lactarius piperatus  
Bo 35 Lactarius rufus  
Bo 188 Lactarius scrobiculatus  
BoS 52 Lactarius Torminosus  
Bo 32 Lactarius vellereus  
Bo 120 Lactarius victus FR.  
Bo 73 Lactarius Volemus  
Bo 113 Laetiporus sulphureus  
Bo 229 Langermannia Gigantea  
Bo 241 Lebista Gilva  
BoS 29 Leccinum Aurantiacum  
Bo 183 Leccinum Griseum  
BoS 68 Leccinum Scabrum  
Bo 123 Lentinellus cochleatus  
Bo 121 Lentodiopsis dryina  
Bo 172 Lepiota cristata  
Bo 135 Lepista gilva  
Bo 140 Lepista inversa  
Bo 74 Lepista nebularis  
BoS 99 Lepista Nuda  
Bo 69 Leucogomphidius  
glutinosus  
BoS 60 Lepista personata  
BoS 57 Lycoperdon Perlatum  
Bo 199 Lycoperdon pyriforme  
Bo 173 Lyophyllum decastes  
Bo 133 Lyophyllum fumosum

## M

BoS 45 Macrolepiota Procera  
BoS 46 Macrolepiota Procera  
Bo 218 Macrolepiota procera  
Bo 171 Macrolepiota rhacodes  
Bo 179 Marasmius oreades  
Bo 104 Megacollybia platyphylla  
Bo 151 Morchella Conica  
Bo 158 Morchella elata  
BoS 152 Morchella Esculenta  
Bo 219 Morchella vulgaris  
Bo 203 Mycena pura

## O

Bo 114 Otidea onotica  
BoS 163 Oudemansiella Radicata

## P

Bo 38 Paxillus Atrotomentosus  
BoS 39 Paxillus Involutus  
Bo 204 Peziza badia  
Bo 157 Peziza vesiculosa  
Bo 180 Phaeolus schweinitzii  
BoS 61 Phallus Impudicus  
Bo 81 Pholiota Squarrosa  
Bo 82 Piptoporus betulinus  
Bo 125 Pleurotus Ostreatus  
Bo 101 Polyporus squamosus  
Bo 184 Polyporus Umbellatus

Bo 185 Polyporus Umbellatus,  
Huge Specimen  
Bo 146 Psathyrella hydrophila  
Bo 187 Pseudohydnum  
Gelatinosum

## R

Bo 165 Ramaria aurea  
Bo 137 Ramaria flava  
Bo 85 Ramaria formosa  
Bo 76 Ramaria mairei  
Bo 216 Ramaria stricta  
Bo 215 Rhodophyllum nidorosus  
Bo 209 Rhodophyllum sinuatus  
BoS 55 Rozites Caperata  
Bo 161 Russula Aeruginea  
BoS 96 Russula Emetica  
Bo 94 Russula Foetens  
Bo 92 Russula Integra  
Bo 127 Russula Nigricans  
Bo 109 Russula ochroleuca  
Bo 118 Russula olivacea  
Bo 93 Russula Paludosa  
Bo 30 Russula sardonia  
Bo 112 Russula xerampelina  
BoS 223 Russula Vesca

## S

BoS 54 Sarcodon Imbricatus  
BoS 56 Scleroderma Citrinum  
Bo 122 Scleroderma citrinum  
BoS 79 Sparassis Crispa  
Bo 176 Stropharia aeruginosa  
Bo 105 Strobilomyces floccopus  
BoS 227 Structure of Hat Fungi  
(Large model)  
Bo 70 Suillus Bovinus  
Bo 212 Suillus Granulatus  
Bo 213 Suillus Granulatus  
BoS 71 Suillus Grevillei  
BoS 36 Suillus Luteus  
Bo 220 Suillus placidus  
BoS 47 Suillus Variegatus

## T

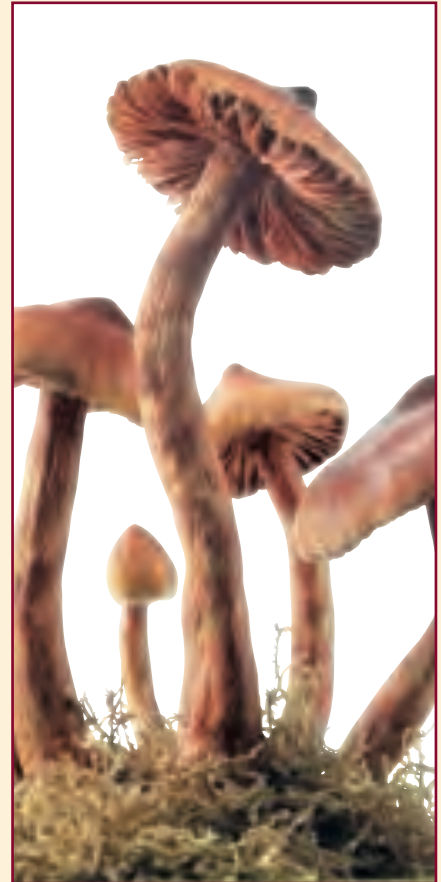
Bo 129 Tremiscus helvelloides  
Bo 178 Tricholoma batschii  
Bo 100 Tricholoma columbetta  
BoS 48 Tricholoma Flavovirens  
Bo 205 Tricholoma imbricatum  
Bo 200 Tricholoma portentosum  
Bo 201 Tricholoma portentosum  
Bo 195 Tricholoma saponaceum  
Bo 192 Tricholoma Sulphureum  
Bo 33 Tricholoma terreum  
Bo 148 Tricholoma vaccinum  
Bo 27 Tricholomop sis rutilans  
Bo 194 Tuber Aestivum  
BoS 34 Tylopilus Felleus

## X

BoS 43 Xerocomus Badius  
Bo 110 Xerocomus Chrysenteron  
Bo 221 Xerocomus parasiticus  
Bo 106 Xerocomus Subtomentosus



SOMSO  
MODELLE  
SINCE 1876



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## FUNGI MODELS

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*Made of SOMSO-Plast except for those models without 'S' after Bo e.g. Bo 37. The models are mounted on a base with real moss. A series of life-size models from over 200 models.*

BOTANY



# BOTANY 3 - FUNGI MODELS



**BOS 23 · AMANITA PHALLOIDES**  
(VAILL.) SECR. Group showing the six most important stages of development, mounted on a base. Deadly poisonous and extremely dangerous!



**BOS 24 · ARMILLARIELLA MELLEA**  
(VAHL ex FR.) KARST. Group showing 6 different stages of development, mounted on a base. Edible raw, but poisonous when uncooked!



**BOS 25 · AMANITA PHALLOIDES**  
(VAILL.) SECR. 3 stages. Deadly poisonous and extremely dangerous!



**BOS 26 · AGARICUS CAMPESTER**  
(L.) FR. Edible.



**Bo 27 · TRICHOLOMOPSIS RUTILANS**  
(SCHFF. ex FR.) SING., Edible.



**BOS 28 · CANTHARELLUS CIBARIUS**  
FR. Edible.



**BOS 29 · LECCINUM AURANTIACUM**  
(BULL. ex ST. AM.) S.F. GRAY. Edible.



**Bo 30 · RUSSELLA SARDONIA**  
FR. cm ROM., poisonous



**BOS 31 · BOLETUS EDULIS**  
BULL. ex FR. Edible.



**Bo 32 · LACTARIUS VELLEREUS**



**BO 33 · TRICHOLOMA TERREUM**  
(SCHFF. ex FR.) KUMM., edible.



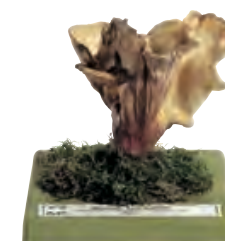
**BOS 34 · TYLOPILUS FELLEUS**  
(BULL. ex FR.) P. KARST. Indigestible.



**BO 35 · LACTARIUS RUFUS**  
(SCOP. ex FR.) FR., edible.



**BOS 36 · SUILLUS LUTEUS**  
(L. ex FR.) S.F. GRAY. Edible.



**Bo 37 · GOMPHUS CLAVATUS**  
(PERS. ex FR.) S.F. GRAY, edible.



**BO 38 · PAXILLUS ATROTOMENTOSUS**  
(BATSCH) FR. of inferior quality.



**BOS 39 · PAXILLUS INVOLUTUS**  
(BATSCH) FR. Poisonous.



**BOS 40 · AMANITA RUBESCENS**  
(PERS. ex FR.) S.F. GRAY. Edible.



**BOS 41 · AMANITA MUSCARIA**  
(L. ex FR.) HOOKER. Poisonous.



**Bo 42 · CORTINARIUS TRAGANUS**  
FR., indigestible.



BOS 43 ·  
XEROCOMUS BADIUS  
(FR.) KÖHN. ex GILB.  
Edible.



BOS 44 ·  
AGARICUS ARVENSIS  
SCHFF. ex FR. Edible.



BOS 45 ·  
MACROLEPIOTA  
PROCERA  
(SCOP. ex FR.) SING. Edible.



BOS 46 ·  
MACROLEPIOTA  
PROCERA  
(SCOP. ex FR.) SING. Top  
edible. (Especially big mush-  
room).



BOS 47 ·  
SUILLUS VARIEGATUS  
(SWARTZ ex FR.)  
O. KTZE. Edible.



BOS 48 ·  
TRICHOLOMA  
FLAVOVIRENS  
(PERS. ex FR.) LUND et  
NANNF. Edible.



BOS 49 ·  
HYGROPHOROPSIS  
AURANTIACA  
(WULF. ex FR.) R. MRE.  
Edible, but of inferior  
quality.



BOS 50 ·  
HYPHOLOMA  
SUBLATERITIUM  
(FR.) QUÉL., indigestible.



BOS 51 ·  
LACTARIUS  
DELICIOSUS  
FR. Edible.



BOS 52 ·  
LACTARIUS  
TORMINOSUS  
(SCHFF. ex FR.) S.F.  
GRAY. Poisonous.



BOS 53 ·  
BOLETUS SATANAS  
LENZ. Poisonous.



BOS 54 ·  
SARCODON IMBRICATUS  
(L. ex FR.) P. KARST. Edible,  
when young.



BOS 55 ·  
ROZITES CAPERATA  
(PERS. ex FR.) KARST.  
Edible.



BOS 56 ·  
SCLERODERMA  
CITRINUM  
PERS. Poisonous.



BOS 57 ·  
LYCOPERDON  
PERLATUM  
PERS. ex PERS. Edible,  
when young.



Bo 58 ·  
CANTHARELLUS  
TUBAEFORMIS  
FR., edible.



BOS 59 ·  
CRATERELLUS  
CORNUCOPIOIDES  
(L.) ex PERS. Edible.



BOS 60 ·  
LEPISTA PERSONATA  
(FR. ex FR.) CKE. Edible.



BOS 61 ·  
LEPISTA PERSONATA  
(FR. ex FR.) CKE. Edible.



BOS 62 ·  
ARMILLARIELLA  
MELLEA  
(VAHL ex FR.) KARST.  
Edible.

# BOTANY 3 - FUNGI MODELS



BoS 63 ·  
KUEHNEROMYCES  
MUTABILIS  
(SCHFF. ex FR.) SING. et  
SM. Edible.



Bo 64 · ALBATRELLUS  
CONFLUENS  
(ALB. et SCHW. ex FR.)  
KOTL. et Pouz., young  
edible.



Bo 65 ·  
HYDNUM REPANDUM  
L. ex FR. Edible.



BoS 66 ·  
AMANITA CITRINA  
(SCHFF.) S.F. GRAY. Poiso-  
nous.



Bo 67 ·  
AGARICUS SILVATICUS  
SCHFF. ex SECR. Edible.



BoS 68 ·  
LECCINUM SCABRUM  
(BULL. ex FR.) S.F. GRAY.  
Edible.



Bo 69 ·  
LEUCOGOMPHIDIUS  
GLUTINOSUS  
(SCHFF. ex FR.) KOTL. et  
POUZ., Edible



Bo 70 ·  
SUILLUS BOVINUS  
(L. ex FR.) O. KTZE. Edible  
(tough).



BoS 71 ·  
SUILLUS GREVILLEI  
(KLOTZSCH) SING.  
Edible.



BoS 72 ·  
AMANITA  
PANTHERINA  
(DC. ex FR.) SECR. Very  
poisonous.



Bo 73 ·  
LACTARIUS VOLEMUS  
FR. Edible.



Bo 74 ·  
LEPISTA NEBULARIS  
(FR.) HARMAJA., Edible in  
small quantities



Bo 75 ·  
HYPHOLOMA  
FASCICULARE  
(HUDS. ex FR.) KUMM.  
Poisonous.



Bo 76 ·  
RAMARIA MAIREI  
DONK., indigestible.



Bo 77 · BOLETUS  
CALOPUS  
FR., indigestible.,  
poisonous.



BoS 78 ·  
ALBATRELLUS OVINUS  
(SCHFF. ex FR.) KOTL. et  
POUZ. Edible.



BoS 79 ·  
SPARASSIS CRISPA  
(WULF.) ex FR. Edible.



Bo 80 ·  
LACCARIA  
AMETHYSTINA  
(BOLT. ex HOOKER)  
MURR., edible



Bo 81 · PHOLIOTA  
SQUARROSA  
(PERS. ex FR.) KUMM.  
Indigestible.



Bo 82 ·  
PIPTOPORUS  
BETULINUS  
(BULL. ex FR.) KARST.,  
Indigestible.





Bo 83 ·  
LACTARIUS NECATOR  
(BULL. em. PERS. ex FR.)  
KARST., Indigestible.



Bo 84 ·  
BOLETUS ERYTHROPUS  
(FR. ex FR.) PERS. Edible.



Bo 85 · RAMARIA  
FORMOSA  
(PERS. ex FR.) QUÉL.,  
poisonous.



Bo 86 ·  
LACTARIUS PIPERATUS  
(L. ex FR.) S.F. GRAY, edible  
after special treatment.



Bo 87 ·  
AGARICUS  
MACROSPORUS  
(MOLL. et SCHFF.) PILÁT,  
edible.



Bo 88 · GANODERMA  
LUCIDUM  
(CURT. ex FR.) KARST,  
not edible.



Bo 89 · BOLETUS  
APPENDICULATUS  
(SCHFF. ex FR.) SECR.,  
edible.



Bo 90 ·  
ALBATRELLUS  
PES-CAPRAE  
(PERS. ex FR.) POUZ.,  
edible.



Bo 91 · CALOCERA  
VISCOSA  
(PERS. ex FR.) FR.,  
not edible.



Bo 92 · RUSSULA  
INTEGRA  
L. ex FR. Good food  
mushroom.



Bo 93 ·  
RUSSULA PALUDOSA  
BRITZ. Good food  
mushroom.



Bo 94 ·  
RUSSULA FOETENS  
FR. Indigestible.



Bo 95 ·  
BOLETUS CAVIPES  
(OPAT.) KALCHBR., edible.



Bo 96 ·  
RUSSULA EMETICA  
FR. Poisonous.



Bo 97 ·  
CANTHARELLUS  
XANTHOPUS  
(PERS.) DUBY., edible.



Bo 98 ·  
CLITOPILUS  
PRUNULUS  
(SCOP. ex FR.) KUMM.,  
edible.



Bo 99 ·  
LEPISTA NUDA  
(BULL. ex FR.) CKE. Fairly  
useful for cooking.



Bo 100 · TRICHOLOMA  
COLUMBETTA  
(FR.) KUMM., edible.



Bo 101 ·  
POLYPORUS  
SQUAMOSUS  
HUDS. ex Fr., edible when  
very young.



Bo 102 ·  
DAEDALEA  
QUERCINA  
L. ex FR., indigestible.

## BOTANY 3 - FUNGI MODELS



Bo 103 ·  
ASPROPAXILLUS  
GIGANTEUS  
(SOW. ex FR.) KÜHN. et  
MRE., edible.



Bo 104 ·  
MEGACOLLYBIA  
PLATYPHYLLA  
(PERS. ex FR.) KOTL. et  
POUZ., top edible.



Bo 105 ·  
STROBILOMYCES  
FLOCCOPUS  
(VAHL ex FR.) KARST.,  
edible, but not very tasty.



Bo 106 ·  
XEROCOMUS  
SUBTOMENTOSUS  
(L. ex FR.) QUÉL. Edible.



Bo 107 · CLITOCYBE  
VIBECINA  
(FR.) QUÉL.



Bo 108 · HYGRPCYBE  
PSITTACINA  
(SCHFF. ex FR.)  
WÜNSCHE. Edible.



Bo 109 · RUSSULA  
OCHROLEUCA  
(PERS. ex SECR.) FR.,  
young edible.



Bo 110 ·  
XEROCOMUS  
CHRYSENTERON  
(BULL. ex ST.-AM.) QUÉL.  
Edible.



Bo 111 ·  
AMANITA VAGINATA  
(BULL. ex FR.) VITT.,  
Edible.



Bo 112 · RUSSULA  
XERAMPELINA  
(SCHFF. ex SECR.), Edible.



Bo 113 ·  
LAETIPORUS  
SULPHUREUS  
(BULL. ex FR.) MURR.,  
young edible.



Bo 114 · OTIDEA  
ONOTICA  
(PERS. ex S.F. GRAY)  
FUCK, edible.



Bo 115 ·  
CORTINARIUS  
ARMILLATUS  
(FR. ex FR.) FR., edible.



Bo 116 ·  
CHROOGOMPHUS  
RUTILUS  
(SCHFF. ex FR.)  
O.K. MILLER., edible.



Bo 117 ·  
AMANITA SPISSA  
(FR.) KUMM.



Bo 118 · RUSSULA  
OLIVACEA  
(SCHFF. ex SECR.) FR.,  
edible.



Bo 119 ·  
CORTINARIUS  
MUCOSUS  
(BULL. ex FR.) KICKX.,  
edible.



Bo 120 ·  
LACTARIUS VIETUS  
FR., not edible.



Bo 121 ·  
LENTODIOPSIS DRYINA  
(PERS. ex FR.) KREISEL,  
young edible.



Bo 122 ·  
SCLERODERMA  
CITRINUM  
PERS., poisonous.

 <p>Bo 123 · LENTINELLUS COCHLEATUS (PERS. ex FR.) KARST., young edible.</p>	 <p>Bo 124 · COLLYBIA MACULATA (A. et S. ex FR.) KUMM., indigestible.</p>	 <p>Bo 125 · PLEUROTUS OSTREATUS (JACO. ex FR.) KUMM. Edible.</p>	 <p>Bo 126 · LACTARIUS HELVUS FR., poisonous!</p>	 <p>Bo 127 · RUSSULA NIGRICANS (BULL.) FR. Edible.</p>
 <p>Bo 128 · CLAVARIADELPHUS LIGULA SCHFF. ex FR., edible, but not very tasty.</p>	 <p>Bo 129 · TREMISCUS HELVELLOIDES (DC. ex FR.) DONK, edible.</p>	 <p>BoS 130 · COPRINUS COMATUS (MöLL. ex FR.) S. F. GRAY. Edible when young.</p>	 <p>Bo 131 · CALVATIA EXCIPULIFORMIS (PERS.) PERD., edible.</p>	 <p>Bo 132 · DERMOCYBE CINNAMOMEALUTEA (ORTON) MOS., indigestible.</p>
 <p>Bo 133 · LYOPHYLLUM FUMOSUM (PERS. ex FR.) ORTON., edible.</p>	 <p>Bo 134 · GYROPORUS CYANESCENS (BULL. ex FR.) QUÉL. Edible.</p>	 <p>Bo 135 · LEPISTA GILVA (PERS. ex FR.) ROZE., edible when young.</p>	 <p>Bo 136 · GYMNOPILUS SAPINEUS (FR.) MRE., indigestible.</p>	 <p>Bo 137 · RAMARIA FLAVA (SCHFF. ex FR.) QUÉL., edible.</p>
 <p>Bo 138 · CAMAROPHYLLUS PRATENSIS (PERS. ex FR.) KUMM., edible.</p>	 <p>Bo 139 · ALEURIA AURANTIA (PERS. ex FR.) FUCK. Edible.</p>	 <p>Bo 140 · LEPISTA INVERSA (SCOP. ex FR.) PAT., edible.</p>	 <p>BoS 141 · BOLETUS LURIDUS SCHFF. ex FR. Partly edible, poisonous when raw.</p>	 <p>Bo 142 · BOLETUS RADICANS PERS. ex FR., indigestible, but not poisonous.</p>



## BOTANY 3 - FUNGI MODELS



BO 143 ·  
LACTARIUS  
FULIGINOSUS  
FR., edible.



BO 144 ·  
LACTARIUS  
MAMMOSUS  
FR., edible.



BO 145 ·  
AGARICUS SILVICOLA  
SCHFF. Edible.



BO 146 ·  
PSATHYRELLA  
HYDROPHILA  
(BULL. ex MÉRAT) MRE.,  
edible.



BO 147 ·  
FISTULINA HEPATICA  
SCHFF. ex FR., edible when  
young.



BO 148 ·  
TRICHOLOMA  
VACCINUM  
(PERS. ex FR.) KUMM.



BO 149 ·  
GEASTRUM SESSILE  
(SOW.) POUZ. Indigestible.



BO 150 ·  
FLAMMULINA  
VELUTIPES  
(CURT. ex FR.) KARST.,  
edible.



BO 151 ·  
MORCHELLA CONICA  
PERS. ex FR. Edible.



BO S 152 ·  
MORCHELLA  
ESCULENTA  
PERS. ex STAMANS.  
Edible.



BO S 153 ·  
GYROMITRA  
ESCULENTA  
(PERS.) FR. Poisonous.



BO 154 ·  
HELVELLA CRISPA  
(SCOP.) ex FR. Edible.



BO 155 ·  
GYROMITRA INFULA  
(SCHFF. ex FR.) QUÉL.  
Edible.



BO 156 ·  
INOCYBE  
PATOULLARDI  
BRES. Very poisonous!



BO 157 ·  
PEZIZA VESICULOSA  
BULL. ex ST.-AM., edible.



BO 158 ·  
MORCHELLA ELATA  
Edible.



BO S 159 · INOCYBE  
PATOULLARDI  
BRES., as Bo S 156, but as  
a group with the 6 most  
important stages of develop-  
ment. Very poisonous.



BO 160 · CALOCYBE  
GAMBOSA  
(FR.) DONK. Edible.



BO 161 · RUSSULA  
AERUGINE  
LINDBL. Good food  
mushroom.



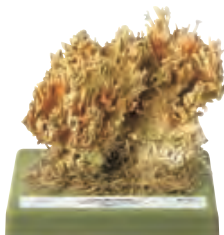
BO 162 · AGARICUS  
PLACOMYCES  
PECK var. meleagris J.  
SCHFF. Poisonous.



BoS 163 ·  
OUDEMANSIELLA  
RADICATA  
(RELHAN ex FR.) SING.  
Edible.



Bo 164 · GROUP OF  
BIG YELLOW BOLETUS  
Top diameter 17 cm., Boletus  
edulis BULL. ex FR. Edible.



Bo 165 · RAMARIA  
AUREA  
(FR.) QUÉL., edible.



BoS 166 ·  
BOLETUS SATANAS,  
HUGE SPECIMEN  
Top diameter 20 cm., LENZ.  
Poisonous.



Bo 167 ·  
INOCYBE FASTIGIATA  
(SCHFF. ex FR.) QUÉL.,  
poisonous.



Bo 168 · HYGROCYPE  
CONICA  
(SCOP. ex FR.) KUMM.,  
edible.



Bo 169 · GEASTRUM  
RUFESCENS  
PERS. Indigestible.



Bo 170 · GEASTRUM  
QUADRIFIDUM  
PERS. ex PERS. Indigestible.



Bo 171 ·  
MACROLEPIOTA  
RHACODES  
(VITT.) SING., edible.



Bo 172 ·  
LEPIOTA CRISTATA  
(A. et S. ex FR.) KUMM.,  
Indigestible.



Bo 173 ·  
LYOPHYLLUM  
DECASTES  
(FR.) SING., edible.



Bo 174 ·  
CORTINARIUS VARIUS  
(SCHFF. ex FR.) FR., edible.



Bo 175 ·  
COPRINUS  
ALRAMENTARIUS  
(BULL. ex FR.) FR., edible  
when young.



Bo 176 · STROPHARIA  
AERUGINOSA  
(CURT. ex FR.) QUÉL.,  
edible.



Bo 177 ·  
HYPHOLOMA  
CAPNOIDES  
(FR. ex FR.) KUMM. Edible.



Bo 178 ·  
TRICHOLOMA  
BATSCII  
GULDEN., poisonous.



Bo 179 · MARASMIUS  
OREADES  
(BOLT. ex FR.) FR., edible.



Bo 180 · PHAEOLUS  
SCHWEINITZII  
(FR.) PAT., Indigestible.



BoS 181 ·  
AGARICUS BITORQUIS  
(QUÉL.) SACC. Edible.



Bo 182 ·  
AGARICUS HORTENSIS  
(CKE.) PILAT. Edible.

## BOTANY 3 - FUNGI MODELS

 <p>Bo 183 · <i>LECCINUM GRISEUM</i> (QUÉL.) SING. Edible.</p>	 <p>Bo 184 · <i>POLYPORUS UMBELLATUS</i> (PERS. ex FR.) Edible when young.</p>	 <p>Bo 185 · <i>POLYPORUS UMBELLATUS</i>, HUGE SPECIMEN (PERS. ex FR.) Edible when young.</p>	 <p>Bo 186 · <i>COLLYBIA FUSIPES</i> (BULL. ex FR.) QUÉL.</p>	 <p>Bo 187 · <i>PSEUDOHYDNUM GELATINOSUM</i> (SCOP. ex FR.) P. KARST. Edible.</p>
 <p>Bo 188 · <i>LACTARIUS SCROBICULATUS</i> (SCOP. ex FR.) FR. Indigestible, poisonous.</p>	 <p>Bo 189 · <i>CLAVARIADELPHUS PISTILLARIS</i> (FR.) DONK. Not nice.</p>	 <p>Bo 190 · <i>AMANITA STROBILIFORMIS</i> (PAULET ex VITT.) BERT. Edible.</p>	 <p>Bo 191 · <i>CLITOCYBE GEOTROPA</i> (BULL. ex ST.-AM.) QUÉL. Edible when young.</p>	 <p>Bo 192 · <i>TRICHOLOMA SULPHUREUM</i> (BULL. ex FR.) KUMM. Indigestible, lightly poisonous.</p>
 <p>Bo 193 · <i>CLAVULINA CINEREA</i> (BULL.) SCHROET., edible.</p>	 <p>Bo 194 · <i>TUBER AESTIVUM</i> (VITT.) Edible.</p>	 <p>Bo 195 · <i>TRICHOLOMA SAPONACEUM</i> (FR.) KUMM., indigestible.</p>	 <p>Bo 196 · <i>CHALCIPORUS PIPERATUS</i> (BULL. ex FR.) BAT., edible but in small portions.</p>	 <p>Bo 197 · <i>CLAVULINOPSIS ARGILLACEA</i> PERS. ex FR., edible.</p>
 <p>Bo 198 · <i>COLLYBIA ASEMA</i> (FR.) KUMM., edible but not very tasty.</p>	 <p>Bo 199 · <i>LYCOPERDON PYRIFORME</i> SCHFF. ex PERS., edible when young.</p>	 <p>Bo 200 · <i>TRICHOLOMA PORTENTOSUM</i> (FR.) QUÉL., edible.</p>	 <p>Bo 201 · <i>POLYPORUS BRUMALIS</i> PERS. ex FR., indigestible.</p>	 <p>Bo 202 · <i>CLAVARIA RUGOSA</i> BULL. ex FR., edible.</p>





Bo 203 ·  
MYCENA PURA  
(PERS. ex FR.) KUMM.,  
edible.



Bo 204 ·  
PEZIZA BADIA  
PERS. ex MÉRAT., edible.



Bo 205 · TRICHOLOMA  
IMBRICATUM  
(FR. ex FR.) KUMM.



Bo 206 ·  
HYGROPHORUS  
HYPOTHEJUS  
(FR. ex FR.) FR., edible.



Bo 207 ·  
AMANITA VERNA  
(BULL.) PERS. Deadly  
poisonous.



Bo 208 ·  
AMANITA VIROSA  
LAM. ex SECR. Deadly  
poisonous.



Bo 209 ·  
RHODOPHYLLUS  
SINUATUS  
(BULL. ex FR.) SING.,  
poisonous.



Bo 210 ·  
CORTINARIUS  
DELIBUTUS  
FR., edible.



Bo 211 · CORTINARIUS  
SUBFULGENS  
ORTON., E edible.



Bo 212 · SUILLUS  
GRANULATUS  
(L. ex FR.) O. KTZE.  
Edible.



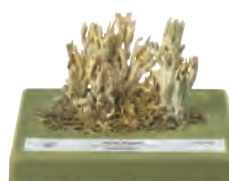
Bo 213 · SUILLUS  
AERUGINASCENS  
(SECR.) SNELL. Edible.



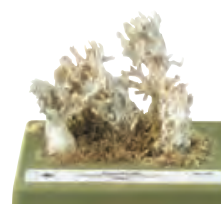
Bo 214 ·  
CORTINARIUS  
CROCOLITUS  
QUÉL., according to Moser  
edible.



Bo 215 ·  
RHODOPHYLLUS  
NIDOROSUS  
(FR.) QUÉL., lightly  
poisonous.



Bo 216 ·  
RAMARIA STRICTA  
(PERS. ex FR.) QUÉL.,  
indigestible.



Bo 217 · CLAVULINA  
CRISTATA  
(HOLMSK. ex FR.)  
SCHROET., edible.



Bo 218 ·  
MACROLEPIOTA  
PROCERA  
(SCOP. ex FR.) SING.,  
edible.



Bo 219 ·  
MORCHELLA  
VULGARIS  
PERS. Edible.



Bo 220 ·  
SUILLUS PLACIDUS  
(BON.) SING., edible.



Bo 221 · XEROCOMUS  
PARASITICUS  
(BULL. ex FR.) QUÉL.,  
edible.



Bo 222 · AMANITA  
CAESAREA  
(SCOP. ex FR.) PERS. ex  
SCHW. Edible.

# BOTANY 3 - FUNGI MODELS



BOS 223 ·  
RUSSULA VESCA  
FR. Edible.



BOS 224 ·  
AGARICUS  
CAMPESTER  
(L.) FR. An extremely large  
mushroom. Edible.



BOS 225 · BOLETUS  
EDULIS  
BULL. ex FR. Group with six  
different stages of develop-  
ment. Edible.



BOS 226 · DEVELOPMENT OF HAT FUNGI

natural size, in SOMSO-Plast. Submitted to Dr. rer. nat. A. Meixner, graduate chemist and fungi expert, Stuttgart. The mycelium, primordial and egg stages, young and mature fruiting bodies of the following species are shown: 1. Amanita phalloides; 2. Xerocomus badius; 3. Common mushroom; 4. Hydnum imbricatum; 5. Oudemansiella radicata. Can be separated into 6 parts. H.: 37 cm., w.: 47 cm., d.: 15 cm., w.: 2 kg.



BOS 228 · AMANITA  
REGALIS  
(FR.) Poisonous.



Bo 229 ·  
LANGERMANNIA  
GIGANTEA  
(BATSCH ex PERS.)  
ROSTK. Edible when young.



BOS 230 · KEFIR-  
MUSHROOM  
Edible.



Bo 231 · CLITOCYBE  
ODORA  
(BULL. ex FR.) KUMM.  
Edible.



Bo 232 · HYDNELLUM  
FERRUGINEUM  
(Fr.: Fr.) Karsten. Not edible.



Bo 235 ·  
CORTINARIUS  
SPLENDENS SP.



BOS 227 · STRUCTURE OF HAT FUNGI

Large model, in SOMSO-Plast. Submitted to Dr. rer. nat. Axel Meixner, graduate chemist and fungi expert, Stuttgart. The morphological features of all the major varieties of types of hat fungi can be seen on this model which comes in 4 sections. The juxtaposition of the various features on one and the same model not only provides assistance in learning how to identify the different species of mushrooms but also enables direct comparisons to be made between edible mushrooms, for example, and similar-looking poisonous ones. On a base. H.: 45 cm., w.: 40 cm., d.: 32 cm., (cap diameter 35 cm.), w.: 5.4 kg.



Bo 236 ·  
CORTINARIUS  
RUBELLUS



Bo 237 ·  
GYROPORUS  
CYANESCENS



Bo 238 ·  
CORTINARIUS  
LIMONIUS



Bo 239 ·  
CORTINARIUS  
CROCEUS



Bo 240 ·  
CORTINARIUS  
STILLATITIUS



Bo 241 ·  
LEBITA GILVA



Bo 242 · CLATHRUS  
ARCHERI  
Group.



Bo 243 ·  
CLATHRUS ARCHERI



SOMSO  
MODELLE  
SINCE 1876



---

## SOMSO FRUIT MODELS

---

*Lifelike and hand painted models which are  
colourfast and resistant to sunlight.*

FRUIT MODELS



*SOMSO has extended its historical collection of fruits to include scattered variations.*

For 130 years we have been making anatomical, zoological and botanical models in our workshops in Coburg and Sonneberg.

"Nature is Our Model" as a basic principle is the deciding factor for true-to-life reproductions from nature in the form of models. We would be only too pleased to send you further information on our collection of species fruit.



03/10 · Cox Orange King Fruit



08/10 · Gellerts Butterbirne



03/12 · Freiherr von Berlepsch



03/25 · King of the Pippins



03/14 · Blenheim Orange



03/13 · Geheimrat Doktor Oldenburg



03/15 · Gravenstein



03/17 · Jakob Fischer



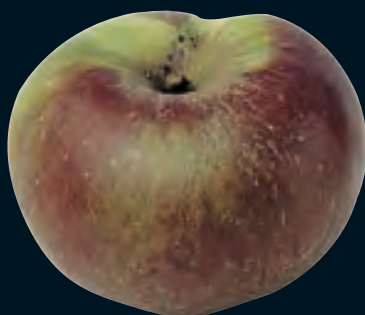
03/22 · Rote Stern Reinette



03/18 · Jonathan



03/23 · Belle de Boskoop



03/20 · Rheinischer Winterrambur



03/24 · Beauty of Wilts.



03/21 · Red Belle de Boskoop

*Other historic varieties (not illustrated):*

03/36 Golden Delicious

03/37 Manga

03/38 Granny Smith

03/40 Danziger Kantapfel

03/41 Idared

08/12 Abate Fetel



03/11 · Cox Orange



03/17 · Jakob Fischer



03/19 · Kaiser Wilhelm



03/26 · White Winter Calville



03/27 · White Transparent



03/28 · Golden Noble



03/29 · Ontario





03/30 · Baumann's Reinette



03/34 · Zabergau Renette



03/31 · Landsberger Reinette



03/35 · Adersleber Calville



03/32 · Reinette du Canada



08/11 · Köstliche v. Charneau



03/33 · Harbert's Reinette

# THE SOMSO HISTORY AT A GLANCE



17th July 1876:  
Foundation of the  
company in Sonneberg,  
Thuringia by Marcus  
Sommer Sr. born 14th  
November 1845.

17.07.1876



In Sonneberg,  
Marcus Sommer  
begins the production  
of anatomical teaching  
models made of  
papier maché.

1876



Around 1880:  
A comprehensive  
collection of fruit  
models produced  
in agreement  
with the German  
"Pomologenverein"  
(fruit experts).

1880



Continuation of the  
fungi model collection  
of H. Arnoldi, Gotha,  
from 1871, and the  
development of a  
collection of plastic fungi  
models - with more than  
240 models today.

1890



1st January 1895:  
Fritz Sommer,  
born 27th December  
1879, inherits his  
father's business.

1895



Production of an  
extensive range of  
heat resistant moulages  
in co-operation with  
University Institutes  
in Jena.

1900



Scientific co-operation  
and consultancy  
begins with Paul  
Hagedorn, Principal  
Preparator at the  
Anatomical Institute  
in Leipzig.

1911



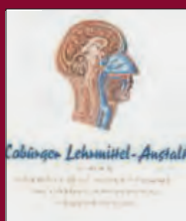
Good business  
relations have been in  
existence with Messrs.  
**Adam, Rouilly**, since  
1927. Marcus Sommer Jr.  
was able to win over this  
customer in England.

1927



15th April 1929: Modeller,  
Max Doehler, born 13th  
June 1905 in Schalkau,  
enters the company.  
During his 52 years with  
the company, the range of  
anatomical, zoological  
and botanical models is  
extended and improved

1929



1st April 1930:  
Acquisition of  
Coburger Lehrmittel-  
anstalt (The Coburg  
Teaching Media Institute)  
by Max Albert Sommer,  
Neuses, Coburg

1930



After the death of  
her husband Fritz  
Sommer, Ida Sommer  
managed the company  
as partner until the  
confiscation in 1952.

1934



12th October 1936:  
Purchase and take-over  
of the Dr. h. c. Friedrich  
Ziegler Studio for  
Scientific Plastics,  
Freiburg in Breisgau

1936



From November  
1936, production  
and distribution of  
the thoroughbred  
animal statuette  
collection by Max  
Landsberg and  
C.A. Brasch.

1936



1st January 1937:  
Marcus Sommer Jr.  
born on 25th February  
1907, became partner  
and managed the  
company until he died  
on 26th December  
1986.

1937



Willy Schaerf enters  
the company as  
authorised signatory  
and is responsible for  
the progress of the  
company until 1971.

1947



21st June 1948:  
After the war,  
production of the  
original SOMSO-  
MODELLE starts  
in Coburg.

1948



18th December 1952:  
Take-over of Messrs.  
Marcus Sommer,  
Sonneberg, Thuringia.  
The property is  
confiscated and  
it becomes a state-  
owned company.

1952



Modeller Edgar Froeber,  
born 6th October 1919,  
enters the company.  
During his 40 years with  
the company he carried  
out the reorganisation in  
Coburg creating a large  
number of botanical and  
zoological models.

1952



25th March 1954:  
Re-introduction  
of the old com-  
pany name  
Marcus Sommer  
SOMSO-  
Werkstaetten,  
Coburg

1954



1st August  
1954: Richard  
Schott enters  
the company,  
who had  
authorised  
signatory  
since 20th  
March 1990.

1954



Scientific co-ope-  
ration begins with  
Studiendirektor  
Christian Gross,  
Dillingen, with  
zoological models  
and the develop-  
ment of a new  
series of true to life  
animal sculptures.

1958



17th November  
1960: The start  
of the first stage  
of construction  
of the premises  
in Coburg,  
Neuses

1960



1st September  
1963: Hans  
Sommer,  
born 18th  
December  
1944, enters  
the company.

1963



Scientific  
co-operation  
begins with  
the Zoologi-  
sche Staats-  
sammlung,  
Munich.

1966



Co-operation  
begins with  
Dr. Eberhard  
Schicha in the  
development  
of insect  
models.

1966



Biology model-  
maker Gerhard  
Weber (born on  
10th November  
1919), provided  
excellent services  
over 33 years as  
Head of the Paint-  
ing Department  
and modeller.

1967



The entire Sommer  
family, Marcus  
and Lotte Sommer  
with their children  
Traute and Hans  
Sommer, working  
at the company.

1968



8th September 1971:  
Foundation of the sister  
company, CLA - Coburger  
Lehrmittelanstalt. Dietrich  
Krauß entered on 1st August  
1955 the company and built  
successfully the range of  
medical phantoms. Together  
with Rudolf Galle, who  
entered on 1st August 1968.

1971



The scientific consultancy  
begins with Professor Dr.  
Dr. Johannes W. Rohen,  
Anatomical Institute of  
the University of Erlangen  
for anatomical models  
and the development of a  
new series of dismantled  
models of the skull and  
the brain

1974



Scientific  
co-operation begins  
with the Anthro-  
pological Institute,  
University of  
Goettingen

1974



Co-operation  
begins with  
Professor Dr.  
Wilhelm Weber,  
Tuebingen in the  
development of a  
large number of  
botanical models.

1980



Since 1988 SOMSO  
MODELLE have  
been advertised  
under the slogan  
"Nature is our  
Model" (photo:  
Rudi Schuhmann, an  
exceptional painter  
for over 36 years).

1988



18th December 1992:  
Re-assignment  
of the parent  
company in  
Sonneberg.

1992



Scientific co-  
operation com-  
mences with  
Professor Dr.  
Wolfgang Schmidt  
and Dr. Werner  
Schneller, Anato-  
mical Institute,  
University of  
Leipzig.

1993



April to  
November 1999:  
Special exhibition  
in the  
Deutsches  
Museum,  
Munich.

1999



17th July 2001:  
125th Annivers-  
ary of SOMSO-  
MODELLE.  
Opening of  
the SOMSO  
MUSEUM at the  
parent company  
in Sonneberg,  
Thuringia

17.07.2001



17.07.2006

130 Years  
SOMSO  
MODELLE



The company has been  
changed into a German  
Limited Liability  
Registered Company.  
With this change, the  
fifth generation are  
now partners and the  
tradition of family  
business, established in  
1876, is able to continue.

01.01.2007

MARCUS SOMMER SOMSO MODELLE GMBH



*Index of the complete SOMSO ANATOMY range.  
Models listed without a page number are available on request*

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MODELLE  
SINCE 1876

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