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AN
E P I T O M E
OF THE
NATURAL HISTORY
OF THE
INSECTS OF CHINA:
COMPRISING
FIGURES AND DESCRIPTIONS
OF
UPWARDS OF ONE HUNDRED NEW, SINGULAR, AND BEAUTIFUL SPECIES; TOGETHER WITH
SOME THAT ARE OF IMPORTANCE IN MEDICINE, DOMESTIC ECONOMY, &c.

THE FIGURES
ARE ACCURATELY DRAWN, ENGRAVED, AND COLOURED, FROM SPECIMENS OF THE INSECTS;
THE DESCRIPTIONS
ARE ARRANGED ACCORDING TO THE SYSTEM OF LINNÆUS; WITH REFERENCES TO THE
WRITINGS OF FABRICIUS, AND OTHER SYSTEMATIC AUTHORS.

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L O N D O N :
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THE History, and Present State of China, as far as relates to its government, its sciences, and its arts, has long been considered worthy of the deepest research; and much information has been collected on these subjects, with considerable labour and expence, under the auspices of several of the most powerful courts in Europe. If the natural productions of that country have attracted less attention, it is only because their value and importance are less generally known; upon better acquaintance they would at once excite our astonishment, and convince us of their utility.

General readers are sometimes disposed to consider the Insect World as too minute and frivolous to deserve investigation. Let them remember, however, that to a foreign Insect the staple commodity of this kingdom is indebted for its richest dye; that from another we derive the most costly articles of dress, and splendid ornaments of luxury; and the utility of many others is apparent in various branches of medicine, the arts, and domestic economy.

Prompted by these reflections, the Author determined to submit to the Public a Series of Engravings illustrative of the Entomology of China.—But flattering as the prospect of encouragement to his project appeared, he would not presume to publish his Work till the result of the late Embassy of Earl Macartney to that country was fully known: of that the public are now in possession; and, though, in common with every friend to the commercial advantages and scientific inquiries of this country, the Author must regret its issue, it is perhaps, on the whole, more favourable to the present Publication than if the event had been different. If indeed a more general intercourse had been established between the two nations, and the language of China had been better understood, it is impossible to calculate the advantages which Entomology, amongst other sciences, might have derived; for the Chinese, like their neighbours the Japanese, are well acquainted with the natural productions of their empire, and Zoology and Botany, in particular, are favourite studies amongst them. To what degree of excellence they have arrived in their scientific researches we are not informed, but we must not affect to despise the instruction of a people amongst whom the most useful arts, and sciences, first dawned and acquired a high degree of perfection, when “Europe had scarcely a few savages scattered over her forests.”

The few, but interesting hints, which Sir George Staunton has given on the practical Entomology of China, induces us to look forward to a period when some of the Insects, as well as Plants, of that vast empire may be no less objects of curiosity, than of national utility and importance; the Chinese Cochineal Insect^a, and that from which the wax of the east is procured,

^a Dr. Anderson has found eight species of Cocci at Madras. One of these, he says, was found on a young citron-tree, *Citrus Sinensis*, just landed from China; it was more deeply intersected between the abdominal rings than any of those of the coast, and he names it therefore *C. Diacopeis*.—*Collection of Letters from Madras*, Jan. 28, 1788.—The Cactus *Cochinillifer* has lately been found by Mr. Kincaid, at Canton; its Chinese name is *Pau wang*.—This has been transmitted to the *Nopaly* of the Hon.

are two species that deserve particular attention. The medical precepts of the Chinese will certainly find few votaries in Europe, but as articles of medicine, amongst others, the *Meloe Cichorei*, which were the cantharides of the ancients, and are now used by the Chinese, may be of importance, as it possesses more virtues than the *Meloe Vesicatorius* used in our pharmacy: the *Curculio regalis*, *Buprestis vittata*, and many others, are also employed in articles of jewellery in the eastern parts of the world, and may vie with the richest gems in beauty and splendour.

These observations we presumed to offer on the Entomology of China, in submitting the Design of this undertaking to the public. We have solicitously endeavoured to gratify the curiosity and expectation such observations were calculated to excite, and trust not altogether unsuccessfully. On the economical purposes of the Chinese Insects we can offer little except conjectures; those may, however, assist the inquiries of future observers; and the general reader will not be disposed to regard it with less favour, if novelty and beauty supply the deficiency of useful information. It embraces, in one view, a variety of the most uncommon and brilliant species of that fertile region, portrayed in an elegant and faithful manner; and classically arranged according to the favourite system of *Linnaeus*. Thus, whilst our Epitome of the Chinese Insects exhibits a splendid display of this beauteous race, it may insensibly lead to a comprehensive survey of the system itself; and, by conveying instruction in its most pleasing form, facilitate the study of this charming, but much neglected science.

From its commencement, the Author has been encouraged by the liberal attention of several persons, whose names would reflect honour on this undertaking, were he at liberty to mention them. He has already observed that his own collection includes several thousand specimens, collected by amateurs of the first celebrity^b. To this he may add, that every other collection he was desirous of consulting, has been kindly open to his inspection; and every information communicated with a readiness that merits his warmest thanks. Amongst these, he cannot refrain noticing the valuable collection of Drawings and MSS before alluded to; the specimens of Insects collected in the journey of his Excellency Earl MACARTNEY, in the late embassy to China; and the very magnificent collections of Mr. FRANCILLON and Mr. DRURY, from both of whom he had unreserved permission to figure and describe whatever his own cabinet could not furnish. And, finally, he must own himself particularly indebted to the favours of the Right Hon. Sir J. BANKS, Bart. K. B. whose invaluable cabinet and library have afforded him every assistance in completing his design, and for which he begs leave to testify his most grateful acknowledgments.

East India Company, at Madras, and promises to be of future advantage to the commercial concerns of Great Britain. We have been unable to procure any of the Chinese Cochineal insects, and purposely omit that species which Sir G. Staunton has noticed, because it has no relation to the productions of China.

^b *The late Duchess Dowager of Portland, — Tunstall, Esq. Governor Halifax, Smeethman, Ellis, Keate, Yeats, Forster, Bailly, &c. &c.*

COLEOPTERA.



Scarabæus Medas.

Scarabæus nasicornis.

cinctus.

sacer.

Leci.

COLEOPTERA.

SCARABÆUS NASICORNIS.

GENERIC CHARACTER.

Antennæ terminate in a kind of club, divided longitudinally into laminæ. Second joint of the foremost pair of legs furnished with spines or teeth.

SPECIFIC CHARACTER.

A scutellum. Thorax armed with three prominences. Horn on the head recurved. Wing-cases smooth.

SCARABÆUS NASICORNIS: scutellatus thorace prominentia triplici, capitis cornu recurvo, elytris lævibus.

Linn. Syst. Nat.

Fab. Ent. Syst. 1. p. 14. 38.

The male of this species is furnished with a long recurved horn on the head; the female has only a small rising on that part. It is found in Europe as well as China.

SCARABÆUS SENICULUS.

SPECIFIC CHARACTER.

Without scutellum. The anterior part of the thorax furnished with two horns, posterior of the head bidentated.

SCARABÆUS SENICULUS: exscutellatus thorace antice clypeo postice bicorni. *Fab. Ent. Syst.* 1. p. 43. 142.

The annexed figures exhibit the two sexes of Scarabæus Seniculus. In some specimens the spots are very indistinct and reddish, in others the wing-cases have faint red striae. The female has the rudiments of horns on the thorax.

COLEOPTERA.

SCARABÆUS MIDAS.

SPECIFIC CHARACTER.

Without scutellum. Thorax armed with three horns: a horn on each side of the head.

SCARABÆUS MIDAS: exscutellatus thorace tricorni, capitis, clypeo sinuato bicorni.

Fab. Ent. Syst. T. 1. p. 45. 148.

The figure of this rare species is taken from a specimen in the collection of Mr. Drury, of London, on assurance that it was received from China. Another, in the cabinet of Sir J. Banks, Bart. described by Fabricius, is noted from America.

The horns on the head of this insect have a very uncommon appearance, and which authors have compared to a pair of ears. The specific name Midas has been aptly given from this circumstance.

SCARABÆUS BUCEPHALUS.

SPECIFIC CHARACTER.

Without scutellum. Thorax blunted in front, armed with four teeth or horns. Shield of the head angulated, furnished with a horn.

SCARABÆUS BUCEPHALUS: exscutellatus thorace retuso quadridentato, capitis clypeo angulato: cornu emarginato. *Fab. Ent. Syst. T. 1. p. 51. 166.*

This species has been confounded with *S. Molossus*. Both insects are given on the same plate, that the difference may be precisely observed.



Scarabaeus Molytus.

** Scarabaeus Seniculus.*

*** Scarabaeus Bucephalus.*

COLEOPTERA.

SCARABÆUS MOLOSSUS.

SPECIFIC CHARACTER.

Without scutellum. Thorax blunted, armed with two teeth, or horns: impressed on each side. Front of the head lunated; with a horn. Wing-cases smooth.

SCARABÆUS MOLOSSUS: exscutellatus thorace retuso bidentato utrinque impresso, clypeo lunato unicorni integro, elytris lævibus. *Linn. Syst. Nat.* 2. 543. 3.

Fab. Ent. Syst. 1. p. 51. 167.

S. Moloffus and S. Bucephalus are very common in China. The first seems a local species, the latter is said to be found in other parts of the East Indies. *Olivier* has given three varieties of *Scarabæus Moloffus*. The specimen figured in the annexed plate is the *var. c.* of that author.

The larvæ of the larger kinds of coleopterous insects, abounding in unctuous moisture, are not less esteemed as food among some modern nations, than they were by the epicures of antiquity. In Jamaica, and other islands in the West Indies, the Macokko^a larva is an article of luxurious food; and in China most insects in that state are appropriated to the same purpose. Thus also the Romans introduced the larvæ of the Lucani^b and Cerambyes^c in their voluptuous repasts; previously feeding them on farinaceous substances to give consistence to the animal juices.

The learned author of the last account we have of China, says, "Under the roots of the canes is found a large white grub, which being fried in oil is eaten as a dainty by the Chinese." Perhaps this is the larva of *Scarabæus Moloffus*, which, like many other of the *Scarabæi*,^d may live sedentary in the ground, and subsist on the roots of plants: the general description and abundance of this insect in China favours such opinion. The same author observes, in another part of his work, that "the aurelias of the silk worm which is cultivated in China, after the silk is wound off, furnish an article for the table." This also is a very ancient custom among the Asiatics, and even Europeans, before the sixteenth century, if we may credit *Aldrovandus*:^e it is certain the worms, if not the aurelias, were administered in medicine in early ages.^f

^a *Prionus damicornis*. *Fab. Ent. Syst.*—*Cerambyx damicornis*. *Linn. Mant.*

^b Stag beetles.

^c Capricorn, or Goat beetles.

^d The larvæ of the *Scarabæi* live in the trunks of decayed trees, in putrid and filthy animal substances, or in the earth. The last are the most injurious, because they destroy the roots of plants. All the known kinds of these larvæ are of an unwieldy form, and whitish colour, the skin free from hairs, and only the head and fore feet defended with a shelly covering.

^e The German soldiers sometimes fry and eat silk worms. *Aldrov.*

^f Silk worms dried, powdered, and put on the crown of the head, help the *vertigo* and *convulsions*; mundify or cleanse the blood, &c. &c. *Schraderus, Serapio, &c. &c.*

COLEOPTERA.

SCARABÆUS SACER. SACRED BEETLE.

SPECIFIC CHARACTER.

No scutellum. Front of the head divided into six dentations. Thorax unarmed, margin crenulated.
Wing-cases smooth. Shanks of the posterior legs hairy.

SCARABÆUS SACER: exscutellatus clypeo sex dentato thorace inermi crenulato, tibiis posticis ciliatis,
elytris lævibus. *Linn. Syst. Nat.*
Fab. Ent. Syst. 1. p. 62. 205.

Scarabæus Sacer is a native of China; it is also found in other parts of the East Indies, in Egypt, Barbary, the Cape of Good Hope, and other countries of Africa, and throughout the south of Europe.

A few remains of ancient monuments, and some fragments of historic information, preserved from an early period of the world, afford certain and interesting details of this inconsiderable creature. Those remains evince indeed but the first dawning of natural and moral philosophy on the human mind, but, connected with the history of the insect before us, are too important to be passed over in silence.

The Scarabæus was held in profound veneration by the people of Egypt. ^g They regarded it as a visible deity; but a more refined system of religious worship prevailed in their temples among the priests and sages. ^h They deemed it only the symbol of their god, and, ascribing both sexes to the *Scarab*, it became a striking emblem of a self-created and supreme first cause. ⁱ

This insect was more especially the symbol of their god Neith, ^k whose attribute was power supreme in governing the works of creation, and whose glory was increased, rather than diminished, by the presence of a superior being, *Phtha*, the creator. The theological definition of the two powers being independent, yet centering in one spirit, is implied by the figurative union of two sexes in the Scarab. In the latter sense it signified therefore but one omnipotent power. The Scarab, typifying Neith, was carved or painted on a

^g The species worshipped by the Egyptians is precisely noted by Linnaeus. *Scarabæus sacer*: and also by Olivier. *Scarabæi sacri*. "Cet insecte étoit autrefois en veneration en Egypt." *Oliv.*

^h *Eichenbach, Jablonki, Savary, &c.*

ⁱ "The father, mother, male and female art thou." *Synefius. Hymn. Phtha*.—"The Egyptian spirit *Phtha* gave chaos form, and then created all things." *Jamblichus de Mysteriis, sect. 8.*

^k *Neith*. The disposer of all things, &c. *Jablonki*. "Sais," of the Delta, "the capital of its district, is a considerable city, of which Amasis was king. *Neith*, the Minerva of the Greeks, is the titular divinity." *Plato in Timæo*.—"On the door of the temple of *Neith* was engraved in hieroglyphics, 'I am what is, what was, what shall be; mortal has never raised my veil; the sun is the fruit of my womb.' *Proclus Commentary on the Timæus of Plato, &c.*—These passages demonstrate Neith and *Phtha* to be two attributes of one spirit. The third attribute is *Cneph*, or divine goodness. *Savary*.

COLEOPTERA.

ring, and worn by the soldiers, as a token of homage to that power who disposed of the fate of battles; ¹ and sculptured on astronomical tables, or on columns, ^m it expressed the divine wisdom which regulates the universe and enlightens man.

¹ Authors quote a doubtful passage in *Herapollo Hieroglyph. lib. 1.* to support this opinion. That such rings were worn by the ancient Egyptians is beyond conjecture, many remains of them, and some very perfect, have been found in the subterranean caverns and sepulchres in the Plain of Mummies near Saccara and Giza. Those which we have examined, are remarkable for the convexity, or full *relievo* of the figure sculptured on them, in some it is of the natural size of the insect, but generally smaller; the stone, cornelian, without a rim, and turning on a swivel ring of gold.

^m Linnæus says the Scarabæus *facer* is sculptured on the antique Egyptian columns in Rome. “*Hic in columnis antiquis Romæ exsculptus ab Ægyptiis.*” *Syl. Nat.* Does Linnæus allude to any remains of those colossal obelisks, which Augustus transported to Rome when he subjugated Egypt, or others of more recent date? It would increase the interest of our enquiries, to learn, that the Scarabæus was among the hieroglyphics, on the two very ancient obelisks, carried from Heliopolis, the city of the Sun.

The indefinite and visionary interpretations, imposed on most Egyptian hieroglyphics through a long series of ages, will barely support a few conjectures on their original signification. Those which related to local incidents, history, or the arts, are veiled in profound obscurity. The phenomena of nature, and astronomical calculations, inscribed in those characters, are scarcely better understood, though the knowledge of those sciences have been in part handed down to us from the learned Egyptians in remote ages. We are informed by ancient writers, that the Scarabæus engraved on the astronomical tables of these people, implied the divine Wisdom which governed the motion and order of the celestial bodies; that those tables were huge and massy stones, or columns of granite, with the characters and figures, large, and highly embossed; in short, such as were supposed capable of long resistance to the corroding hand of time. Among those the Scarab was probably the most conspicuous, its size gigantic, and the figure frequently repeated; for this we have observed, even on small Egyptian antiques.

Various valuable remains of tablets, with figures of the *Scarabæus facer*, are preserved in the British Museum and other collections of antiquities in this country. Those we have examined are of various descriptions, some smaller than the insect itself, others of a monstrous size. The stones on which they are sculptured generally *green nephritic* or *jade stone*, or a kind of *basalt*, and black marble; the figure *basso relievo*, on a tablet or slab, but oftener in *relievo*, with the prominent characters of the insect very accurately defined, particularly the six dentations of the clypeo, and those of the tibiæ. The reverse of the embossed side is flat and smooth, and abounds in characters altogether unknown, though, from the number of religious objects of worship occasionally interspersed, we may presume they contain an ample store of the ancient sacerdotal language: the most remarkable were the scarab, the sceptre and eye,^a the human figure with a dog's head,^b the hawk,^c and the Ibis,^d or sacred bird. On the thorax of one fine specimen we remarked four elegant figures. One of them is holding a *cornucopia* in the left hand, and a branch in the right: this is perhaps a subordinate deity of the Nile, that river having been once found depicted on an antique Alexandrian coin, like an aged man, holding the cornucopia, and a branch of the Papyrus; denoting its abundance and produce.

The digression on the mythological history of this insect may be considered by some as a tedious deviation from the pursuit of the naturalist; with others we trust it will be more favourably received; for it proves to the unprejudiced mind how deeply the history of nature, and in the present instance the science of Entomology, involves a most important enquiry into the first philosophical opinions of the human race. The means, however trifling, must not be contemned, which illumine the most sublime of all human researches,—*The Study of Mankind.*

^a *Osiris*, or the sun.

^b *Anubis*.

^c *Horus*, a famous deity, had three cities dedicated, called by the Greeks the cities of *Apollis*.

^d The mummies of these birds are found in urns, in the subterranean galleries called the well of birds near *Saccara*, supposed from the fize to be the *Tantalus* Ibis of Linnæus.

COLEOPTERA.

SCARABÆUS LEEI.

SPECIFIC CHARACTER.

Without scutellum. Obscure copper colour. Under side black. Shield of the head margined.

SCARABÆUS LEEI: exscutellatus obscurus cupreus subtus niger, clypeo emarginato.

Fab. Ent. Syst. 1. 65. 215.

SCARABÆUS CINCTUS.

SPECIFIC CHARACTER.

Without scutellum. Unarmed, black. Margin of the elytra pale. Shield of the head margined.

SCARABÆUS CINCTUS: exscutellatus muticus niger elytrorum margine pallido; clypeo emarginato.

Fab. Ent. Syst. 1. 69. 231.

CETONIA CHINENSIS.

SPECIFIC CHARACTER.

Shining green and gold colour. Shield of the head margined, with two spines. Posterior part of the thorax lobed. Wing-veins terminate in an acute spine.

CETONIA CHINENSIS: ænea clypeo emarginato subspinoso, thorace postice lobato, elytris acuminatis.

Fab. Ent. Syst. 1. p. 2. 126. 6.

This, and the next species, are described by Fabricius, in the two new genera, Cetonia and Melolontha. They are Scarabæi of the Linnæan system. Cetonia Chinensis is a fine and very rare insect.

MELOLONTHA VIRIDIS.

SPECIFIC CHARACTER.

Above green. Beneath golden colour, or bronze.

MELOLONTHA VIRIDIS: glabra supra viridis subtus aurea. *Fab. Ent. Syst.* 1. p. 2. 160. 23.

Oliv. Inf. tab. 21. *fig.* 6. *tab.* 3. 18.

This specimen nearly corresponds with one of the Melolontha viridis figured by Olivier, which came from the Cape of Good Hope: our insect is undoubtedly from China.

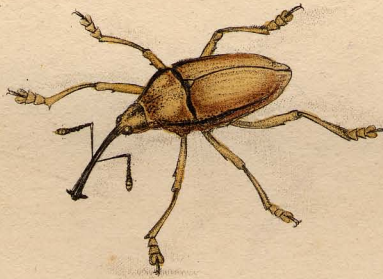
COLEOPTERA.



* *Cetonia Chinensis.*

* *Melolontha viridis.*

COLEOPTERA.



Curculio Chinensis.

barbirostris.

squamosus.

Curculio longipes.

verrucosus.

pulverulentus.

perlatus.

COLEOPTERA.

CURCULIO CHINENSIS.

GENERIC CHARACTER.

Antennæ club-shaped, and inserted in a horny proboscis or snout.

SPECIFIC CHARACTER.

Beak long. Thighs dentated. Body covered with yellowish powder, except a stripe of black on the sides of the thorax and wing cases: a spine on each side of the beak, at the apex.

CURCULIO CHINENSIS: longirostris, femoribus dentatis ^a, corpore polline flavescente obtecto, lateribus nigris, rostro utrinque spinoso.

This insect seems nearly allied to *Curculio mucoreus*, an Indian species, described by Linnæus, but not figured by any author: the lateral stripe of black; and the denticulations on the posterior thighs of our insect clearly removes it, however, from the Linnæan species. Among the *Curculiones* described since by Fabricius, we have not discovered any with which our species can be confounded; and deeming it a non-descript, we name it specifically *Chinensis*; a name, perhaps, too local, but expressive of the native place of our specimen; and not applied by Fabricius, in his last work, to any insect of the same genus, though that author has exhausted almost every applicable name, in the descriptions of more than four hundred of its species.

The only specimen of this curious insect we have seen, is in the possession of Mr. Drury of London, from whose extensive collection we have been liberally permitted to copy, and describe, such Insects as we considered worthy of noticing in this work.

^a Except the lateral black stripes, and the rostrum, *Curculio Chinensis* is totally covered with a bright brown powder, or rather, with very minute hairs which adhere but slightly, and resemble that substance. We observe a similar farinaceous appearance on the *Curculiones*, *Lacteus*, *Niveus*, &c. and especially on that gigantic beetle *Scarabæus Elephas*.

COLEOPTERA.

CURCULIO LONGIPES.

SPECIFIC CHARACTER.

General colour blackish brown. Wing-cases ferruginous. Beak long, margined with small irregular tubercles on each side, and at the apex. Anterior legs longest.

CURCULIO LONGIPES: longirostris nigricans elytris ferrugineis, rostro emarginato, pedibus anticis longioribus. *Fab. Ent. Syst.* 1. p. 2. 395. 4.
Oliv. fig. 191.

All the specimens of this *Curculio* that have come under our inspection, are natives of China. Fabricius says it is from the Cape of Good Hope^b.

CURCULIO BARBIROSTRIS.

SPECIFIC CHARACTER.

Entirely black. Beak long, and bearded. Three spines on the anterior shank of the legs.

CURCULIO BARBIROSTRIS: longirostris niger rostro barbato, tibiis anticis tridentatis. *Fab. Ent. Syst.* 1. p. 2. 418. 105.

Uncommonly scarce. Fabricius refers for this insect to the collection of Cramer. We have only seen the specimen from which our figure is taken.

^b The inaccuracy of this remark of Fabricius will appear by comparing the descriptions and synonyms of *Curculio longipes*, in his *Species Insectorum*, with the same species in his *Entomologia Systematica*. In the first he describes *Curculio longipes*, quotes fig. 3. tab. 33. vol. 2. of Mr. Drury's work, and gives its habitat, Cape of Good Hope. In his last work he gives the same description, changes the reference from Mr. Drury's work to that of Olivier, fig. 191; but continues the other references, by which the Chinese species is probably unintentionally left as a native of Africa.