## HELIX HORTENSIS.


Character Genericus.
Animal Limax.
Tefta univalvis, fpiralis, fubdiaphana, fragilis. Apertura coarctata, intus lunata, f. fubrotunda: fegmento circulo dempto.

Lin. Syf. Nat. p. 1241.
Character Specificus, B̌c.
HELIX tefta imperforata pallida, fafciis latis interruptis fufcis.
COCHLEA vulgaris major pulla maculata et fafciata hortenfis.

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\text { Lif. Angl. tab. 2. fig. } 2 .
$$

AN HELIX LUCORUM?
Lin.

Militat omnis amans, et habet fua caftra Cupido:
Attice, crede mihi; militat omnis amans. Ov.

Helix vulgaris, feu ut communiter vocatur, Cochlea, in numero eft animalium quæ ob vilitatem, formamque fordidam et abjectam, a plerifque contemni et negligi folent; in quibus tamen plura fortaffe difcernere
cernere poteft phyficus quæ delectationem admirationemque excitent, quam vel in majoribus animalibus. Cochlearum enim anatome adeo miraculis plena eft, ut de variis illarum partibus integrum volumen poffet componi. Cum vero longis ambagibus feciatim has minutias defcribere lectoribus plurimis moleftum fit, breviter tantum illa percurremus memoratu digniffima. Oculi Cochlearum in fummitatibus duorum longiorum tentaculorum, feu ut vulgo vocantur, cornuum fiti funt: quod licet a quibufdam phyficis dubitatum fit, ab experimentis tamen et accuratiffimis Swammerdamii inveftigationibus clare confirmatur: probatur quoque cos cofdem fere humores, tunicas, et vafa, quibus animalium majorum oculi inftruuntur, continere. Non defuere qui Cochlearum cornua pro veris telefcopiis naturalibus habuerunt, afferueruntque poffe illas ea vel extendere vel contrahere pro diftantia objecti ad quod oculos direxerint. Hæc autem idea ftructuram magis multimodam arguit, quam revera his organis tribuit Natura, et fortaffe inter plurimas fit hæc hypothefis, quas ingenio fuo indulgere folent nonnulli Nature fpeculatores.

Dentes Cochleæ funt validi et acuti; omnefque corporis partes tam interiores quam exteriores ad animalis iftius mores habitufque egregie accommodantur.

De miro genérandi modo dicturus, lectores meos enixe orem neceffe eft ut nec me fabulas philofophicas fingere exiftiment, nec fidem fuam deficere et imminui finant.

Si quidem vera nobis referunt oculati Naturæ inter animalia inferiora inveftigatores, Cochlearum amores
inufitato et fibi peculiari quodam more promoventur ; femperque ipfum complexum precedit mira formula, quæ pugnæ ftatariæ faciem omnino exhibet.

Cochleæ lafcivientes mutua vota telorum parvulorum ictibus, quæ peracuta funt et quafi cornea, fibi invicem communicant; illifque refertam pharetram exiguam, in dextro latere cervicis fitam, quamdiu permanferit illis conjunctionis defiderium, intus geftant. Emiffo primo telo, illico refpondet Cochlea vulnerata, timile in amantem jaculatur ; ab illa telum alterum emittitur, rurfufque ipfa invicem percutitur ; Cupidinifque fagittæ, quas per omne ævum cecinit fervidum poetarum et amantium ingenium, in ipfa tandem Na tura revera inveniuntur. Peracto hoc lepido prelio, coeunt Cochleæ, et deinde locum idoneum ubi ova fua deponant follicite quæritant; humidum nempe et opacum receffum, vel fub terræ gleba, vel cavo aliquo tegmine. Rotunda funt hæc ova, magnitudine fere piforum parvulorum, coloris albi fubpellucentis, et fubftantiæ mollis. Ex his excluduntur Cochlex plene formatæ, teftas fuas in dorfo ferentes, nec ullam aliam mutationem præter naturale molis incrementum fubeunt. Hortis et pomariis damnum non leve inferre folent Cochleæ, et notatu dignum eft, illas, fi defecerit cibus fucculentus, fructus nempe aut folia, corpora etiam dura et ficca rodere : memini enim egomet Helicem hortenfem, (qualis eft illa quæ hic depingitur,) fub vitro cujus diameter quatuor uncias fuperabat inclufam, fubftratam chartam communem cæruleam una nocte ufque ad ipfius vitri marginem devoraffe ; circulo relicto velut ab ipfo circino defignato.

Ab 'experimentis Spallanzanii aliorumque probatur, Cochleas, abfciffa aliqua parte, repullulandi facultatem habere : ipfe enim Spallanzanius Cochleæ caput abfcidit, quod, elapfo certo tempore perfecte regerminabat. Hujus experimenti veritas, licet a nonnullis denegetur, ab aliorum tamen doctiffimorum phyficorum teftimonio fatis comprobatur.

Quanquam variis intervallis fagittas fuas jaculentur Cochleæ, fatendurn tamen eft tabulam repræfentare illas plus æquo a fe invicem remotas. Plerumque propius accedunt; immo interdum fit ut telum ipfum, gladii inftar, in corpore oppofito infixum ftet, dum Cochlea quæ jaculum emiferit, recedit paululum, fagittam quafi commilitonis fui expectans.




## THE

## G A R DEN SNAIL.


Generic Character.
The Animal a Slug.
Sbell fpiral, fub-pellucid.
Aperture femi-lunar.

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\text { SPECIFIC Character, } \mathrm{E}^{2} c .
$$

SNAIL with a fhell of a pale colour, with broad interrupted bands of brown.

## The COMMON GARDEN SNAIL.

See to the fight the gentle warriors move, And dart with harmlefs force the fhafts of love !

The Snail is amongft the number of thofe animals which we are apt to overlook on account of their feemingly contemptible appearance, but which will perhaps open to our attentive furvey a greater variety of curious particularities than moft other creatures can exhibit. The anatomy of the fnail is full of wonders, and a volume might be written on its hiftory; but, without defcending to a tedious narrative of all its parts, I fhall only mention a few of the moft remarkable ones. The eyes of Snails are fituated on the tips of the two longeft horns, and though their exiftence has
has been queftioned by fome Naturalifts, yet the accurate refearch of Swammerdam has fufficiently proved their real nature, and that they are furnifhed with nearly the fame humours, coats, and veffels as in moft of the larger animals. Some authors have fuppofed the horns to be a kind of natural telefcopes, and that the animal fhortened or lengthened them according to the diffance of the objects to which it directed them; but this idea feems to imply a more complicated ftructure than can be found in this organ, and, I believe, muft be given up as one of thofe ingenious hypothefes which are too frequently entertained by fpeculative enquirers.

The teeth of the Snail are fharp and ftrong, and all the internal as well as external parts of the creature are admirably calculated by Nature for the mode of life to which it is deftined.

But the moft wonderful part of the hiftory of the Snail, is its manner of breeding; and I muft requeft my readers to fummon all their philofophical faith to receive the furprifing particulars.

If the obfervations of the moft profound enquirers into the operations of Nature amongft the lower orders of animals may be depended upon, the amours of Snails are conducted in a manner very different from thofe of moft other creatures, and are always preceded by a very extraordinary ceremonial, which has all the appearance of a regular combat.

When thefe animals are difpofed to love, they fignify their mutual wifhes by launching feveral little darts at each other. Thefe darts are of a very fharp form, and of a horny fubftance, and the animals are provided
with a little quiver or refervoir of them during the breeding feafon: this internal quiver or repofitory of the darts is fituated within the neek, and opens externally on the right fide. Upon the difcharge of the firft dart, the wounded Snail immediately retaliates upon the aggreffor, and difcharges a fimilar one; the other again renews the battle, and is again in its turn wounded; and thus the darts of Cupid, fo long and loudly celebrated by poets and lovers, and which are metaphorical with all the reft of the creation, are here completely realized. When the animals have continued for fome time the combat juft defcribed, a reconciliation takes place, and they unite; after which they are folicitous to depofit their eggs in a place of fafety. For this purpofe they choofe a moift, cool fituation, generally under fome little clod, or in fome fmall fheltered cavity, in which they place them: they are perfectly round; about the fize of very fmall peafe, of a femi-tranfparent white colour, and of a foft fubftance: from thefe the young are hatched completely formed, and with their fhells on their backs, and undergo no farther change than a gradual increafe of fize.

The depredations which thefe animals commit in gardens and orchards is very confiderable, and it is remarkable that in defect of moift fucculent food, as fruit and tender leaves, they will even attack fubftances of a hard and dry nature. I have known the common garden Snail here figured, when confined for one night under a glafs of more than four inches in diameter, which was placed on a fheet of common blue paper, entirely devour the whole paper contained in the inclu-
ded fpace, to the very edge of the glafs, fo that a circular piece feemed almoft as accurately taken out, as if marked by a pair of compaffes.

From the experiments of Spallanzani and others, it appears that Snails are poffeffed of a very confiderable degree of reproductive power. Spallanzani in particular, has found that the whole head of a Snail may be cut off, and yet in a certain fpace of time will be reproduced. This has been denied by fome, but its truth is eftablifhed by experiments conducted by the moft careful and accurate obfervers.

It is neceffary to add, that the Snails in the annexed plate, are reprefented at fomewhat too great a diftance from each other; this is a circumftance which admits of great variation, but in general the animals make a nearer approach before they dart their fpicula; and in fome particular inftances they have been known to approach fo near during this action, that the dart has been infixed in the manner of a fword, in which cafe the animal that difcharged it, withdraws again to fome little diftance, and feems to wait for a fimilar attack.


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Shaw, George. 1790. "The Garden Snail, Helix hortensis [PI. 30]." The Naturalist's Miscellany 1(X), https://doi.org/10.5962/p.310682.

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