











SYNONYMY OF THE  
BRITISH NON-MARINE  
MOLLUSCA



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BRITISH NON-MARINE  
MOLLUSCA

(RECENT AND POST-TERTIARY)

COMPILED AND ANNOTATED BY

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AND

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## PREFACE

THIS careful and critical compilation of the synonymy of the British Non-marine Mollusca by Messrs. A. S. Kennard and B. B. Woodward should have the effect of saving other malacologists much time and trouble. The species are placed under those names which, in the opinion of the authors, most nearly accord with the requirements of the rules of nomenclature.

The index has been prepared by Mr. J. C. Vickery: the Greek and Latin derivations have been checked by Mr. G. C. Robson, M.A., who has followed Liddell and Scott's *Lexicon* (Ed. 7) for the Greek accents.

C. TATE REGAN  
(Keeper of Zoology).

*British Museum (Natural History),*  
March, 1926.



## INTRODUCTION

THE object of this work is to furnish a list of all the various names under which, at one time or another, the several species of the British Non-marine Mollusca, Recent and Post-Tertiary, have been known. The term "name" is here used to designate the combination of the generic (with sometimes the subgeneric, but not sectional) and specific names.

The work also serves as an Index, so far as the included species are concerned, to all the more important manuals dealing with the British Mollusca, as well as such of the older foreign ones that have a direct bearing on the subject matter, a list of which is appended (p. ix). In all other cases the first occurrence only of a given name is recorded. Important synonyms have been added from all available sources, but no attempt has been made, nor could any such be successful, to include all the innumerable names founded, chiefly by continental writers, on forms which are of mere varietal value, if that. Names of doubtful identity, preceded by a "?," have been introduced when they have been cited as correct by subsequent writers. Similarly varietal names elevated into specific by some later author have been included. An "\*" is prefixed to those, fortunately few, entries of which it has not been possible to see the original, and supplied information is enclosed in "[ ]". A "†" is prefixed to the names of extinct species.

Citations of papers that have appeared in serial publications or as parts of larger works, are made direct to the serial or work in question, the titles of the papers or contributions themselves being given in the appended "Bibliography." Every care has been taken to make all the references correct, but it is too much to expect that no errors have crept in, and kind indulgence is craved for any such.

Inevitably, of course, some of the synonyms are to a certain

extent "paper" ones. Misidentifications are not always easily traceable, so that it is frequently necessary to accept a synonym on the *ipse dixit* of an author who may or may not be correct.

The species recognized by the compilers are placed under those names, which in their opinion, most nearly accord with the requirements of the International Rules of Zoological Nomenclature (Monaco edition). The Synonymy of each is ranged in chronological order. The earliest recorded occurrence in the British Islands of each species is noted, as well as its geological range.

The systematic order adopted is based on the conclusions of trustworthy workers in molluscan morphology, allowance being made for conflicting opinions sometimes displayed by members of the anatomical school.

Although primarily designed for the use of students of British Mollusca, the work should prove of value to malacologists generally, since most of the genera have a more or less world-wide distribution, while nearly all the species are palæarctic and not a few circumpolar in their range. Moreover, it is hoped that it may have some weight with the ordinary collector and those writers, concerned mainly with the anatomical or palæontological side of the subject, who are given to undervalue the niceties of nomenclature, not perhaps fully realizing that results correct in themselves but based on inaccurately named specimens must in the end infallibly lead to faulty if not absolutely misleading conclusions, correct systematic determination being the ultimate basis of all zoological science.

Many friends have kindly assisted in the compilation, more especially are we indebted and would return our sincere thanks to C. Davies Sherborn, of "Index Animalium" fame, to A. E. Salisbury for many bibliographical researches, and to H. W. England, Dr. B. D. Jackson (General Secretary of the Linnean Society), G. C. Robson, J. R. le B. Tomlin, and W. J. Wintle. The late R. Bullen Newton, I.S.O., also gave us valuable help.

A. S. KENNARD.

B. B. WOODWARD.

March, 1926.



LIST OF THE BRITISH MANUALS, ETC., AND SUCH  
EARLY FOREIGN WORKS AS ARE INDEXED SO  
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1758. LINNÆUS (C.), *Systema Naturæ*, ed. 10.
1767. LINNÆUS (C.), *o. c.*, ed. 12.
1774. MÜLLER (O. F.), *Vermium terrestrium et fluviatilium  
Historia*, ii.
1777. PENNANT (T.), *British Zoology*, ed. 4, iv. 4to. and 8vo.
1778. COSTA (E. M. DA), *Historia Naturalis Testaceorum  
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1791. GMELIN (J. F.), *C. Linné . . . Systema Naturæ*, ed. 13,  
i, pt. 6.
1799. PULTENEY (R.), *Catalogues of the Birds, Shells, and . . .  
Plants of Dorsetshire*.
1813. PULTENEY (R.), *o. c.* With additions [by T. RACKETT].
1801. DRAPARNAUD (J. P. R.), *Tableau des Mollusques terrestres  
et fluviatiles de la France*.
1805. DRAPARNAUD (J. P. R.), *Histoire naturelle des Mollusques  
terrestres et fluviatiles de la France*.
- 1803-(08). MONTAGU (G.), *Testacea Britannica (& Supplement)*.
1807. MATON (W. G.) and RACKETT (T.), *A Descriptive Cata-  
logue of the British Testacea (Trans. Linn. Soc. Lond.,  
viii)*.
1817. DILLWYN (L. W.), *A Descriptive Catalogue of Recent Shells*.
- 1821-8. PFEIFFER (C.), *Naturgeschichte Deutscher Land- und  
Süßwasser-Mollusken*.
1823. BROWN (T.), "Conchology" in *Encyclopædia Britannica*,  
ed. 6.
1826. RISSO (A.), *Histoire naturelle . . . de l'Europe méridionale*,  
iv.
1827. BROWN (T.), *Illustrations of the Conchology of Great Britain  
and Ireland*.
- [1837-]44. BROWN (T.), *o. c.*, ed. 2.
- 1830-33. JEFFREYS (J. G.), *A Synopsis of the Testaceous Pneu-  
monobranchous Mollusca of Great Britain (Trans. Linn.  
Soc. Lond., xvi)*.

1831. TURTON (W.), *A Manual of the Land and Fresh-water Shells of the British Islands.*
1840. TURTON (W.), *o. c.* New edition . . . by J. E. GRAY.
1857. TURTON (W.), *ibid.*
1845. BROWN (T.), *Illustrations of the Land and Fresh Water Conchology of Great Britain and Ireland.*
- 1849-52. FORBES (E.) and HANLEY (S. C. T.), *A History of British Mollusca.*
1852. LEACH (W. E.), *Molluscorum Britannia Synopsis.*
- 1855-6. MOQUIN-TANDON (A.), *Histoire naturelle des Mollusques terrestres et fluviatiles de France.*
1862. JEFFREYS (J. G.), *British Conchology*, i.
1863. REEVE (L.), *The Land and Freshwater Mollusks, indigenous to, or naturalized in, the British Isles.*
- 1894→. TAYLOR (J. W.), *Monograph of the Land and Freshwater Mollusca of the British Isles.*

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[A † is prefixed to the names of extinct species.]

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# SYNONYMY OF THE BRITISH NON-MARINE MOLLUSCA

Class : **GASTROPODA.**

(Sub-class : **Streptoneura.**)

Order : *ASPIDOBRANCHIA.*

(Sub-order : *RHIPIDOGLOSSA.*)

Fam. : **NERITIDÆ.**

Genus : **1. THEODOXUS**, Montfort.

Etym. :—Gr. *θεός* + *δόξα*, glory of the Creator.

Type :—*Theodoxus lutetianus*, Montfort = *Nerita fluviatilis*,  
Linnæus.

(*Nerita*, vett. auctt.)

1806. *Neritarius* [pars] : FRORIEP, in Duméril's *Analyt. Zool.*,  
pp. 165 & 339.
1810. *Theodoxus* : MONTFORT, *Conch. Syst.*, ii, p. 351. [By  
error under figure on p. 350, *Theodoxis*.]
1815. *Laphrostoma* : RAFINESQUE, *Analyse Nature*, p. 144.
1816. *Neritina* : LAMARCK, *Tabl. Encyclop. & Méthod.*, Vers,  
iii, pl. ccclv, and *Liste des Objets représentés*,  
p. 11. [The usual reference to *Phil. Zool.*,  
1809, is incorrect, the name only occurs there  
in the vernacular, "*Neritine*."] ]
1833. *Elca* : ZIEGLER, in Fitzinger, *Beitr. Landesk. Oesterr.*,  
iii, p. 116 in synonym.
1848. *Chernites* : GISTEL, *Naturg. Thierreichs f. Schulen*, p. 168.
1854. *Neritella*, Humphrey : H. & A. ADAMS, *Genera Moll.*, i,  
p. 380. [Humphrey's *Mus. Calonn.* is not  
accepted for nomenclatorial purposes.] ]
1854. *Lamprostoma* [err. pro *Laphrostoma*], Rafin. : H. & A.  
ADAMS, *Genera Moll.*, i, p. 381. [*Non*  
*Lamprostoma*, Swainson, 1840.] ]

1854. *Vitta*, Klein, subg. of *Neritella* : H. & A. ADAMS, *Genera Moll.*, i, p. 382. [Klein was a pre-Linnean writer.]  
 1912. *Theodoxis*, de Montfort : CONNOLLY, *Ann. S. Afric. Mus.*, xi, p. 270.  
 1913. *Theodoxia*, D. de Montfort : GERMAIN, *Moll. France*, ii, p. 324.

1. **Theodoxus fluviatilis** (Linnæus).

Etym. :—Lat. *fluviatilis*, pertaining to rivers.

1758. *Nerita fluviatilis* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 777, no. 632.  
 1767. *Nerita fluviatilis* : LINNÆUS, *o. c.*, ed. 12, p. 1253, no. 723.  
 1774. *Nerita fluviatilis* : MÜLLER, *Verm. Hist.*, ii, p. 194.  
 1777. *Nerita fluviatilis*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 141; 4to, p. 122, pl. lxxxvii, f. 142.  
 1778. *Nerita fluviatilis* : DACOSTA, *Test. Brit.*, p. 48, pl. iii, f. 8.  
 1791. *Nerita fluviatilis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3676, no. 29.  
 1798. *Nerita cardinalis* : BOLTEN, *Mus. Bolt.*, ii, p. 16, no. 189.  
 1799. *Nerita fluviatilis* : PULTENEY, *Cat. Dorset.*, p. 50.  
 1801. *Nerita fluviatilis*, Linn. : DRAPARNAUD, *Tabl. Moll. France*, p. 36.  
 1803. *Nerita fluviatilis*, Linn. : MONTAGU, *Test. Brit.*, p. 470.  
 1805. *Nerita fluviatilis*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 31, pl. i, f. 1-4.  
 1806. *Neritarius fluviatilis*, L. : FRORIEP, in Duméril's *Analyt. Zool.*, pp. 165 & 339.  
 1807. *Nerita fluviatilis*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 225.  
 1810. *Theodoxus lutetianus* : MONTFORT, *Conch. Syst.*, ii, p. 351.  
 1813. *Nerita fluviatilis* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 57, pl. xvi, f. 17 & 18.  
 1815. *Nerita fontinalis* : BRARD, *Hist. Coq. Paris*, p. 196, pl. vii, f. 11 & 15.  
 1817. *Nerita fluviatilis*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 988.  
 1820. *Neritina fluviatilis*, L. : SCHWEIGGER, *Handb. Naturg.*, p. 733.  
 1821. *Nerita fluviatilis*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 106, pl. iv, f. 37-39.  
 1822. *Neritina fluviatilis*, Linn. : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 188.  
 1823. *Nerita fluviatilis* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 462.  
 1827. *Neritina fluviatilis*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xliii, f. 4 & 5.  
 1828. *Nerctina* [sic] *fluviatilis* : FLEMING, *Brit. Anim.*, p. 321.  
 1831. *Neritina fluviatilis*, Linn. : MICHAUD, *Compl. Hist. Nat. Moll. France Drap.*, p. 102.

1831. *Neritina fluviatilis*, Lam. : TURTON, *Manual*, p. 138, f. 124.
- \*1833. *Neritina variabilis* : HÉCART, *Mém. Soc. Agric. Valenc.*, i, p. 146.
1836. *Neritina Dalmatica*, Partsch : SOWERBY, *Conch. Illust.*, f. 57.
- 1840, } *Neritina fluviatilis*, Linn. : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 83, pl. x, f. 124.
- Post } *Neritina fluviatilis*, Turton : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 26, pl. xiii, f. 4 & 5 and xviii, f. 1-3.
1840. }
1841. *Nerita (Theodoxus) zebrina* (Nobis) : RÉCLUZ, *Rev. Zool. Soc. Cuv.*, 1841, p. 341.
1842. *Nerita (Neritina) Mitreana* : RÉCLUZ, *Rev. Zool. Soc. Cuv.*, 1842, p. 181.
1845. *Neritina fluviatilis*, Turton : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 1, pl. i, f. 1-3 and xxiv, f. 16.
1848. *Chernites fluviatilis* : GISTEL, *Naturg. Thierreichs f. Schulen*, p. 168.
1850. *Neritina fluviatilis*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iii, p. 3, pl. lxxi, f. 1 & 2.
- 1852, } *Neritina Europæa* : LEACH, *Moll. Brit. Synop.*, p. 181.  
Feb. }
1852. *Neritina Bourguignati*, Nobis : RÉCLUZ, *Journ. de Conchyl.*, ii, p. 293.
1854. *Neritella (Vitta) fluviatilis*, Linn. : H. & A. ADAMS, *Genera Moll.*, i, p. 383.
1856. *Nerita fluviatilis*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 549, pl. xlii, f. 1-43.
1857. *Neritina fluviatilis*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 46, pl. x, f. 124.
1862. *Neritina fluviatilis*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 53; v, pl. iv, f. 1.
1863. *Neritina fluviatilis*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 203, figs.
1866. *Theodoxus fluviatilis*, Linneo : ISSEL, *Mem. Soc. Ital. Sci. Nat. Milano*, ii, no. 1, p. 33.
1886. *Neritina (Theodoxus) fluviatilis*, Lin. : WESTERLUND, *Fauna Paläarct. Region*, vi, p. 149.
1913. *Theodoxia fluviatilis*, Linné : GERMAIN, *Moll. France*, ii, p. 325, f. 375 & 376.
1914. *Theodoxis fluviatilis* (Linné) : KENNARD & WOODWARD, *List of British Non-marine Moll.*, p. 11.

[GERMAIN (*Moll. France*, ii, p. 325) considers as varieties often scarcely distinct :—*Theodoxia dilatata* (Moq.-Tand.) Locard; *T. Reyniesi*, Paladilhe; *T. Penchinati*, Bourg; *T. thermalis*, Boubée; *T. Mitrei*, Récluz; and *T. boetica*, Lamk.]

First recorded as British in 1678, by M. Lister (*Hist. Anim. Angl.*, p. 136, pl. ii, f. 20).  
British Distribution in Time : Holocene and Recent.

2. †**Theodoxus Cantianus**, Kennard & Woodward.  
Etym. :—Lat. *Cantium*, the county of Kent.

1900. *Neritina fluviatilis* : STOPES, *Journ. Anthropol. Inst.*, xxix, p. 302. [*Non* Linné.]  
1903. *Neritina grateloupiana*, Fér. : KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, v, p. 320 [on the identification of Dr. O. Boettger]. [*Non* Férussac.]  
1914. *Theodoxis crenulatus*, Klein : KENNARD & WOODWARD, *List of British Non-marine Moll.*, pp. 4 & 11 [on later advice from Dr. Boettger]. [*Non* Klein.]  
1924. *Theodoxus cantianus*, n. sp. : KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, p. 130, figs.

First recorded as British in 1900, by H. Stopes, as *Neritina fluviatilis*. (See ref. above.)  
British Distribution in Time : Pleistocene.

Order : PECTINIBRANCHIA.

(Sub-order : TÆNIOGLOSSA.)

Fam. : POMATIIDÆ.

Genus : 1. POMATIAS, Studer.

Etym. :—Gr. πῶμα, a lid.

Type :—*Nerita elegans*, Müller.

(*Nerita*, *Turbo*, *Cyclostoma*, vett. auctt.)

1789. *Pomatias* : STUDER, in Coxe, *Trav. in Switzerld.*, iii, p. 388.  
1801. *Cyclostoma* [pars] : DRAPARNAUD, *Tabl. Moll. France*, p. 37.  
1810. *Cyclostomus* : MONTFORT, *Conchyl. Syst.*, ii, p. 287.  
1830. *Cochlocycla*, subg. 2 of *Cyclostoma* : JAN, *Consp. Method. Test.*, p. 6.  
1847. *Licina*, Brown[e], subg. of *Cyclostoma* : BECK, *Amtl. Ber. 24. Versamml. Deutsch. Naturf.*, 1846 (1847), p. 123.  
1848. *Ericia*, Moq. MS., subg. 3 of *Cyclostoma* : PARTIOT, *Mém. s. Cyclostomes*, p. 24.  
1904. *Ericia* [as a genus] : KOBELT, in Rossmässler, *Icon.*, N.F. x, p. 71.

1. *Pomatias elegans* (Müller).Etym. : Lat. *elegans*, neat.

1774. *Nerita elegans* : MÜLLER, *Verm. Hist.*, ii, p. 177.  
 1777. *Turbo tumidus* : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 128; 4to, p. 111, pl. lxxxii, f. 110.  
 1778. *Turbo striatus* : DACOSTA, *Test. Brit.*, p. 86, pl. v, f. 9.  
 1789. *Pomatias elegans* (Müll.) : STUDER, in COXE, *Trav. in Switzerld.*, iii, p. 388.  
 1791. *Turbo elegans* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3606, no. 74.  
 1792. *Turbo reflexus* ? Linn. : OLIVI, *Zool. Adriat.*, p. 170.  
 1799. *Turbo elegans* : PULTENEY, *Cat. Dorset.*, p. 45.  
 1801. *Cyclostoma elegans*, Müll. : DRAPARNAUD, *Tabl. Moll. France*, p. 38.  
 1803. *Turbo elegans*, Gmel. : MONTAGU, *Test. Brit.*, p. 342.  
 1805. *Cyclostoma elegans*, Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 32, pl. i, f. 5-8.  
 1807. *Turbo elegans* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 167.  
 1810. *Cyclostomus elegans*, Roissy : MONTFORT, *Conch. Syst.*, ii, p. 287.  
 1813. *Turbo elegans* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 50, pl. xxi, f. 9.  
 1817. *Turbo elegans* : DILLWYN, *Cat. Shells*, ii, p. 863.  
 1821. *Cyclostoma elegans*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 74, pl. iv, f. 30 & 31.  
 1823. *Turbo elegans* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 456.  
 1826. *Cyclostoma elegans*, Gmel. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 103.  
 1826. *Cyclostoma affinis*, N. [pars] : RISSO, *t. c.*, p. 104. [*Teste Bourguignat and Caziot.*]  
 1827. *Cyclostoma elegans*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. lxi, f. 28.  
 ?1829. *Cyclostoma marmorea* : BROWN, *Edinb. Journ. Nat. & Geogr. Sci.*, i, p. 12, pl. i, f. 10 & 11.  
 1830. *Cyclostoma elegans*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 362.  
 1830. *Cyclostoma (Cochlocycla) elegans*, Drap. : JAN, *Conspect. Method. Test.*, p. 6.  
 1831. *Cyclostoma elegans*, Drap. : TURTON, *Manual*, p. 93, f. 75.  
 1840, } *Cyclostoma elegans*, Müller : GRAY, in Turton's *Manual*,  
 Apr. } new ed., p. 275, pl. vii, f. 75.  
 Post }  
 Sept. } *Cyclostoma elegans*, Draparnaud : BROWN, *Illust. Conch.*  
 1840. } *Brit.*, ed. 2, p. 34, pl. xiv, f. 28.  
 Post }  
 Sept. } *Cyclostoma marmorea*, Brown : BROWN, *o. c.* p. 34,  
 1840. } pl. xiv, f. 15.

1845. *Cyclostoma elegans*, Draparnaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 26, pl. iv, f. 10 & 11 and pl. xxiv, f. 24.
- ?1845. *Cyclostoma marmorata*, Brown: BROWN, *o. c.*, p. 27, pl. iv, f. 13 & 14 [16 on pl.].
1847. *Cyclostoma (Licina) elegans*: BECK, *Amtl. Ber.* 24. *Versamml. Deutsch. Naturf.*, p. 123.
1849. *Cyclostoma (Ericia) elegans*, Drap.: PARTIOT, *Mém. s. Cyclostomes*, p. 27.
- 1852, } *Cyclostoma elegans*, Müll.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 203.
- 1852, } *Cyclostoma elegans*, Müller: FORBES & HANLEY, *Brit.*  
Sept. } *Moll.*, iv, p. 201, pl. cxxii, f. 3.
1856. *Cyclostoma (Ericia) elegans*, Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 496, pl. xxxvii, f. 3-23.
1857. *Cyclostoma elegans*, Müller: GRAY, in Turton's *Manual*, new ed., p. 19, pl. vii, f. 75.
1862. *Cyclostoma elegans*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 304; v, pl. xviii, f. 5.
1863. *Cyclostoma elegans*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 177, figs.
1903. *Ericia elegans*, Müll.: KOBELT, in Rossmässler, *Icon.*, N.F. x, p. 71.

[GERMAIN (*Moll. France*, ii, p. 274) cites as synonyms:—*Cyclostoma subelegans*, Bourg.; *C. physetum*, Bourg.; and *C. lutetianum*, Bourg.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 2).

British Distribution in Time: Pleistocene to Recent.

Fam.: ACMEIDÆ.

Genus: 1. ACME, Hartmann.

Etym.:—Gr. ἀκμή, a point.

Type:—*Bulimus lineatus*, Draparnaud.

(*Helix*, *Bulimus*, *Turbo*, *Auricula*, *Carychium*, vett. auctt.)

1817. *Auricella* [pars]: JURINE, *Helvet. Almanach*, 1817, p. 34.
1821. *Acicula*: HARTMANN, *Neue Alpina*, i, p. 205. [*Non Renier*, 1807 (*Vermes*).]
1821. *Aeme*: HARTMANN, in Sturm's *Deutschl. Fauna*, vi, hft. 5, p. 37.
1837. *Pupula*, Ag. (Msc.): CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 22.
1856. *Platyla*, subg. 2 of *Acme*: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 509.

1. *Acme lineata* (Draparnaud).

Etyim. :—Lat. *lineatus*, marked with lines.

1789. *Helix cochlea*, a new species : STUDER, in Coxe's *Trav. in Switzerld.*, iii, p. 386. [*Nom. nud.*]
1801. *Bulimus lineatus* : DRAPARNAUD, *Tabl. Moll., France*, p. 67.
1801. *Turbo muscorum*, Linn. : DONOVAN, *Brit. Shells*, iii, pl. lxxx. [*Non Linnæus.*]
1803. *Turbo fuscus*, Walk. : MONTAGU, *Test. Brit.*, p. 330. [Walker & Boys described and figured, but did not name this.]
1805. *Auricula lineata* : DRAPARNAUD, *Hist. Moll. France*, p. 57, pl. iii, f. 20 & 21.
1807. *Carichium acicularis* : FÉRUSSAC, *Essai méthod. Conchyl.*, p. 53.
1807. *Turbo fuscus*, Walker : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 186.
1817. *Auricella lineata* : JURINE, *Helvet. Almanach*, 1817, p. 34.
1817. *Carychium acicularis*, de Férus. : BLAINVILLE, *Dict. Sci. Nat.*, vii, p. 188.
1820. *Carychium cochlea*, mihi : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," p. 21.)
1821. *Carychium lineatum*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 104 (June ed., p. 100).
1821. *Acicula lineata*, Drap. : HARTMANN, *Neue Alpina*, i, p. 215.
1822. "*Cyclostoma lineatum*, Fér., *Dict. Class. d'Hist. Nat.*, ii, p. 90." [A fictitious reference sometimes cited in synonymy. Férussac never gave the name; he merely observed: "Selon les observations du docteur Verdat de Délémont . . . l'animal du *Carych. lineatum* serait operculé, et devrait par conséquent être placé parmi les Cyclostomes."]
1823. *Acme lineata*, mihi : HARTMANN, in Sturm's *Deutschl. Fauna*, vi, hft. 6, no. 2.
1827. *Bulimus lineatus*, Turton : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, 25.
1827. *Bulimus minutus*, Brown's MSS. : BROWN, *o. c.*, pl. xli, f. 26.
1828. *Carychium lineatum*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 43, pl. vii, f. 26 & 27.
1828. *Carychium fuscum*, Walk. : FLEMING, *Hist. Brit. Anim.*, p. 270.
1830. *Carychium fuscum*, Walker : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 364.
1831. *Bulimus lineatus*, Drap. : TURTON, *Manual*, p. 83, f. 66.



1837. *Pupula lineata*, mihi: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 22.
1837. *Acme fusca* (Walker), B.: BECK, *Index Moll.*, p. 101.
1838. *Cyclostoma* ? *lineatum*, Drap.: PORRO, *Malac. Comasca*, p. 76, pl. i, f. 5.
1839. *Bulimus subdiaphanus*, N.: BIVONA, *Giorn. Sci. Lett. Palermo*, lxiv (altered in MS. to lxvi) p. 233.
1840. *Pupula (Acicularis) lineata*: HARTMANN, *Erd- & Süßw.-Gasterop.*, p. i, pl. i. [Referred on the plate to *Truncatella*.]
1840. } *Acme fusca*, Boys & Walker: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 223, pl. vi, f. 66.
- Post }  
Sept. } *Acme fusca*: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 34,  
1840. } pl. xiv, f. 25.
- Post }  
Sept. } *Acme minuta*, Brown: BROWN, *o. c.*, p. 35, pl. xiv, f. 26.  
1840. }
1843. *Cyclostoma fuscum*: MOQUIN-TANDON, *Hist. & Mém. Acad. Sci. Toulouse*, vi, p. 180.
1845. *Acme fusca*: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 28, pl. iv, f. 15.
1845. *Acme minuta*, Brown: BROWN, *o. c.*, p. 29, pl. iv, f. 16 [14 on pl.].
1847. *Acmea fuscus*: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 180.
1848. *Cyclostoma (Acme) fuscum*, Moq.: PARTIOT, *Mém. s. Cyclostomes*, p. 16.
1852. *Acme lineata*, Hartmann: FORBES & HANLEY, *Brit. Moll.*, iv, p. 204, pl. cxxv, f. 7.
1852. *Acicula fusca (Turbo)*, Walker: PFEIFFER, *Mon. Pneumon. Viv.*, p. 4.
1856. } *Acicula fusca*, Walker: H. & A. ADAMS, *Genera Moll.*,  
Mar. } ii, p. 312.
1856. } *Acme (Auricella) lineata*, Drap.: MOQUIN-TANDON, *Hist.*  
Apr. } *Moll. France*, ii, p. 509, pl. xxxviii, f. 4-7.
1856. } *Acme (Platyla) fusca*, Walk. & Boys: MOQUIN-TANDON,  
Apr. } *t. c.*, p. 509, pl. xxxviii, f. 8-16.
1857. *Acicula fusca*, Boys & Walker: GRAY, in Turton's *Manual*, new ed., p. 39, pl. vi, f. 66.
1862. *Acme lineata*, Draparnaud: JEFFREYS, *Brit. Conch.*, i, p. 308; v, pl. xviii, f. 6, as *A. fusca*.
1863. *Acme lineata*, Draparnaud: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 179, figs.
1870. *Acicula (Pupula) fusca*, Walker: BETTA, *Atti Accad. Agric. Verona*, xlvii, mem., p. 102.
1885. *Acme (Acicula) lineata*, Drap.: WESTERLUND, *Fauna Paläarct. Region*, v, p. 97.



[GERMAIN (*Moll. France*, ii, p. 282) cites as synonyms :—*Acme Dupuyi*, Paladilhe; *A. Locardi*, Bourg.; and *A. trigonostoma*, Paladilhe.]

First recorded as British in 1784, by Boys & Walker (*Test. minut. rar.*, p. 12, pl. ii, f. 42).

British Distribution in Time : Pleistocene to Recent.

Fam. : VIVIPARIDÆ.<sup>1</sup>

Genus : 1. VIVIPARUS, Montfort.

Etym. :—Lat. *viviparus*, bringing forth its young alive.

Type :—*Viviparus fluviorum*, Montfort = *Helix vivipara*, Linnæus.

(*Helix*, *Nerita*, *Cochlea*, *Bulimus*, *Cyclostoma*, *Natica*, vett. auctt.)

- 1810, } *Viviparus* : MONTFORT, *Conch. Syst.*, ii, p. 246.  
May. } [Lamarck in 1809, in *Phil. Zool.*, used the  
vernacular "*Vivipare*."] .  
\*1810, } *Henterum* : HUEBNER, *Epist.*, i (*Teste Menke, Zeitsch. f.*  
Nov. } *Malak.*, v, 1848, p. 56).  
1812. *Paludina*, Lam. : FÉRUSAC, *Ann. Mus. Hist. Nat. Paris*,  
xix, p. 253. [Lamarck in 1812, in *Extr.*  
*Cours Zool.*, used the vernacular "*Palu-*  
*dine*."] .  
1815. *Viviparella* : RAFINESQUE, *Analyse Nature*, p. 144.  
1817. *Paludimum* : JURINE, *Helvet. Almanach*, 1817, p. 34.  
1818. *Vivipara* : FLEMING, Suppt. 4–6th ed. *Ency. Brit.*, iii,  
p. 313.

1. *Viviparus viviparus* (Linnæus).

Etym. :—Lat. *viviparus*, bringing forth its young alive.

1758. *Helix vivipara* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 772,  
no. 603.  
1767. *Helix vivipara* : LINNÆUS, *o. c.*, ed. 12, p. 1247, no. 690.  
1774. *Nerita vivipara* : MÜLLER, *Verm. Hist.*, ii, p. 182.  
?1777. *Helix vivipara* [pars] : PENNANT, *Brit. Zool.*, ed. 4, iv,  
8vo, p. 137; 4to, p. 119. [His figure is of  
*V. fasciata*.]  
1778. *Cochlea vivipara* [pars] : DACOSTA, *Test. Brit.*, p. 81,  
pl. vi, f. 2.  
1791. *Helix vivipara* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i,  
pt. 6, p. 3646, no. 105.  
1799. *Helix vivipara* [pars] : PULTENEY, *Cat. Dorset.*, p. 48.  
1801, } *Bulimus viviparus*, Lin. : POIRET, *Coq. Aisne*, p. 61.  
Apr. }

<sup>1</sup> For Note on the Recent British Species, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1920, p. 88.

- 1801, } *Cyclostoma achatinum*: DRAPARNAUD, *Tabl. Moll.*  
 July. } France, p. 40.
1803. *Helix vivipara*, Lin. [pars]: MONTAGU, *Test. Brit.*,  
 p. 386.
1805. *Cyclostoma viviparum*: DRAPARNAUD, *Hist. Moll.*  
 France, p. 34, pl. i, f. 18. [Errone in explan.  
 "16 & 17."]
1807. *Helix vivipara*, Linn.: MATON & RACKETT, *Trans. Linn.*  
*Soc.*, viii, p. 205.
1810. *Viviparus fluviorum*: MONTFORT, *Conch. Syst.*, ii, p. 247,  
 fig. p. 246. -
1812. *Paludina vivipara*: FÉRUSAC, *Ann. Mus. Hist. Nat.*  
 Paris, xix, p. 253.
1813. *Cyclostoma achatinum*, Drap.: MILLET, *Moll. Maine &*  
*Loire*, p. 7.
1813. *Helix vivipara* [pars]: RACKETT, in Pultency, *Cat.*  
*Dorsct.*, ed. 2, p. 54.
- 1813? *Lymnaea vivipara*: FLEMING, *Edinb. Ency.*, vii, p. 77.
1815. *Cyclostoma viviparum*: OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
 p. 259.
1816. *Paludina achatina*: LAMARCK, *Ency. Méthod.*, Vers,  
 pl. ccclviii, f. 1, *Liste des objets représentés*,  
 p. 12.
1817. *Helix vivipara*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 939.
1817. *Paludinum viviparum*: JURINE, *Helvet. Almanach*, 1817,  
 p. 34.
1820. *Paludina achatina*, Drap.: STUDER, *Naturw. Anz. Allg.*  
*Schweiz. Gesell.*, iii, p. 91. (Reprint, "Syst.  
 Verzeichn.," p. 22.)
1821. *Paludina (Vivipara) vulgaris*: GRAY, *Lond. Med. Repos.*,  
 xv, p. 239.
1822. *Paludina achatina*: LAMARCK, *Hist. Anim. s. Vert.*, vi,  
 pt. 2, p. 174.
1823. *Helix vivipara*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 460.
- ?1823. *Turbo achatinus*: SHEPPARD, *Trans. Linn. Soc.*, xiv,  
 p. 152. [The author states that it is the  
*Cyclostoma achatinum* of Draparnaud, but  
 not whether he followed the latter's figure  
 or his description.]
1827. *Paludina vivipara*, Lam.: BROWN, *Illust. Conch. Brit.*,  
 ed. 1, pl. xli, f. 68 & 69.
1828. *Paludina achatina*, Lam.: C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, iii, p. 44, pl. viii, f. 3.
1831. *Paludina achatina*, Drap.: TURTON, *Manual*, p. 134,  
 f. 119.
1833. *Paludina achatinum* [sic], Lam.: MILLET, *Actes Soc.*  
*Linn. Bordeaux*, vi, p. 135.
- 1840, } *Paludina achatina*, Drap.: GRAY, in Turton's *Manual*,  
 Apr. } new ed., p. 91, pl. x, f. 119.

- Post  
Sept. }  
1840. } *Paludina achatina*, Lamarck : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 26, pl. xiv, f. 68 & 69.
1845. *Paludina achatina*, Lamarck : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 4, pl. 1, f. 6 & 7.
1847. *Paludina cfasciata* : PICKERING, *Zoologist*, v, p. 1787.
1847. *Viviparus Linnæi*, Beck : BECK, *Amtl. Ber. 24. Versamml. Deutsch. Naturf.*, p. 123.
1850. *Paludina vivipara*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iii, p. 11, pl. lxxi, f. 14 & 15.
1851. *Vivipara fasciata* : DUPUY, *Hist. Moll. France*, p. 540, pl. xxvii, f. 6.
1852. *Paludina vulgaris* : LEACH, *Moll. Brit. Synop.*, p. 207.
1854. *Vivipara fasciata* : MILLET, *Ann. Soc. Linn. Maine & Loire*, i, p. 305.
1856. *Paludina vivipara*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 535, pl. xl, f. 25.
1857. *Paludina vivipara*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 31, pl. x, f. 119.
1862. *Paludina vivipara*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 58; v, pl. iv, f. 3.
1863. *Paludina vivipara*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 195, figs.
1870. *Paludina fasciata* : MILLET, *Faune Invert. Maine & Loire*, i, p. 58.
1880. *Vivipara paludosa* : BOURGUIGNAT, *Recense Vivipara Europ.*, p. 20.

First recorded as British in 1686, by M. Lister (*Hist. Conch.*, ii, pl. cxxvi, f. 26).

British Distribution in Time : Holocene to Recent.

## 2. †*Viviparus diluvianus* (Kunth).

Etym. :—Lat. *diluvium*, a flood. Named in reference to its occurrence in strata referred to the Diluvial Period.

1865. *Paludina diluviana* : KUNTH, *Zeitschr. Deutsch. Geol. Gesell.*, xvii, p. 331, pl. vii, f. 8 a-d.
1872. *Paludina Clactonensis*, S. Wood : WOOD, *Crag Moll. (Pal. Soc. Monog.)*, Suppt. i, p. 69, pl. i, f. 4 a-b.
1901. *Vivipara clactonensis*, S. V. Wood : KENNARD & WOODWARD, *Proc. Geol. Assoc.*, xvii, p. 239.
1901. *Vivipara diluviana* : KENNARD & WOODWARD, *t. c.*, p. 251.

First recorded as British in 1872, by S. V. Wood, as *Paludina Clactonensis*. (See ref. above.)

British Distribution in Time : Pleistocene.

3. *Viviparus fasciatus* (Müller).

Etym. :—Lat. *fasciatus*, banded.

1774. *Nerita fasciata* : MÜLLER, *Verm. Hist.*, ii, p. 182.
1777. *Helix vivipara*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 137; 4to, p. 119, pl. lxxxiv, f. 132. [Non Linné.]
1778. *Cochlea vivipara* [pars] : DACOSTA, *Test. Brit.*, p. 81.
1791. *Helix fasciata* : GMELIN, *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3646, no. 106.
1799. *Helix vivipara* [pars] : PULTENEY, *Cat. Dorset.*, p. 48.
1801. *Cyclostoma viviparum* : DRAPARNAUD, *Tabl. Moll. France*, p. 40.
1803. *Helix vivipara*, Lin. [pars] : MONTAGU, *Test. Brit.*, p. 386.
1805. *Cyclostoma achatinum* : DRAPARNAUD, *Hist. Moll. France*, p. 36, pl. i, f. 16 & 17. [Errore explan. "18."]
1807. *Helix vivipara* [pars] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 205.
1813. *Helix vivipara* [pars] : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xvii, f. 2.
1813. *Cyclostoma contectum* : MILLET, *Moll. Maine & Loire*, p. 5.
- 1813? *Lymnæa vivipara* [pars] : FLEMING, *Edinb. Ency.*, vii, p. 78.
1817. *Helix fasciata*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 940.
1820. *Paludina vivipara*, Drap. : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91. (Reprint, "Syst. Verzeichn.," p. 22.)
1821. *Paludina (Vivipara) crystallina* : GRAY, *Lond. Med. Repos.*, xv, p. 239.
1821. *Paludina vivipara*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 103, pl. iv, f. 42 & 43. [Non Linné.]
1822. *Paludina vivipara* : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 173.
- ?1823. *Turbo achatinus* : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 152. [The author says that it is the *Cyclostoma achatinum* of Draparnaud, but does not state whether he followed that naturalist's figure or the description.]
1827. *Paludina achatina*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 71 & 72. [Errore in explan. "70 & 71."]
1831. *Paludina vivipara*, Drap. : TURTON, *Manual*, p. 133, f. 118.
1833. *Paludina vivipara*, Lam. : MILLET, *Actes Soc. Linn. Bordeaux*, vi, p. 134.
- 1834? *Paludina achatina* : SOWERBY, *Genera Moll.*, no. xli, *Paludina*, f. 1.

1838. *Paludina fasciata*, Mull. : DESHAYES, in Lamarek, *Hist. Anim. s. Vert.*, ed. 2, viii, p. 513 note.
- 1840, } *Paludina vivipara*, Linn. : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 90, pl. x, f. 118. [Non. Linné.]
- Post }  
Sept. } *Paludina vivipara*, Lamarek : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 26, pl. xiv, f. 71 & 72.
1845. *Paludina vivipara*, Lamarek : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 3, pl. i, f. 4 & 5; xxiv, f. 19-21.
1847. *Viviparus lacustris*, Beck : BECK, *Amtl. Ber. 24. Ver-sammml. Deutsch. Naturf.*, p. 123.
1850. *Paludina Listeri*, Forbes & Hanley, FORBES & HANLEY, *Brit. Moll.*, iii, p. 8, pl. lxxi, f. 16.
1851. *Vivipara vulgaris* : DUPUY, *Hist. Moll. France*, p. 537, pl. xxvii, f. 5.
1852. *Paludina achatina*, Drap. : LEACH, *Moll. Brit. Synop.*, p. 208.
1854. *Vivipara vulgaris*, Lam. : MILLET, *Ann. Soc. Linn. Maine & Loire*, i, p. 304.
1856. *Paludina contecta*, Millet : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 532, pl. xl, f. 1-24. [Cites in error in synonymy "*Vivipara communis*, Dupuy."]
1857. *Paludina crystallina*, Gray : GRAY, in Turton's *Manual*, new ed., p. 30, pl. x, f. 118.
1862. *Paludina contecta*, Millet : JEFFREYS, *Brit. Conch.*, i, p. 56; v, pl. iv, f. 2.
1862. *Vivipara vera* : FRAUENFELD, *Verhandl. zool.-bot. Gesell. Wien*, xii, p. 1161; and xiv, 1864, p. 658.
1863. *Paludina contecta*, Millet : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 194, figs.

[GERMAIN (*Moll. France*, ii, p. 285) cites as synonyms :—  
*Vivipara brachya*, Bourg.; *V. communis*, Bourg.;  
and *V. paludosa*, Bourg.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 17).

British Distribution in Time : Pleistocene to Recent.

4. †*Viviparus gibbus* (Sandberger).

Etym. :—Lat. *gibbus*, humped.

1872. *Paludina contecta*, Millet : S. V. WOOD, *Crag Moll. (Pal. Soc. Monog.)*, 1st Suppt., p. 69, pl. i, f. 6. [Non Millet.]
1872. *Paludina vivipara*, Linné : S. V. WOOD, *t.c.*, p. 70, pl. i, f. 5. [Non Linné.]

1880. *Paludina gibba*, Sandb. : SANDBERGER, *Palaeontogr.* xxvii (N.F. vii), p. 97, pl. xii, f. 2, 2 a.  
 1914. *Vivipara gibba* (Sandberger) : KENNARD & WOODWARD, *List Brit. Non-mar. Moll.*, p. 11.

First recorded as British in 1872, by S. V. Wood, as *Paludina contecta*, Millet. (See ref. above.)  
 British Distribution in Time : Cromerian.

5. †*Viviparus glacialis* (S. V. Wood).

Etym. :—Lat. *glacialis*, icy (because found in beds attributed to the Glacial Period).

1872. *Paludina ? glacialis*, S. Wood : S. V. WOOD, *Crag Moll.* (*Pal. Soc. Monog.*), 1st Suppt., p. 68, pl. iv, f. 14, pl. vii, f. 25.  
 1899. *Vivipara glacialis* (S. V. Wood) : KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, iii, p. 199.

First described as British in 1872, by S. V. Wood, as *Paludina ?*. (See ref. above.)  
 British Distribution in Time : Pliocene and Cromerian.

Fam. : PALUDESTRINIDÆ.

(Sub-fam. : BYTHININÆ.)

Genus : 1. **BITHYNIA**, Leach.

Etym. :—Named after Bithynia, a province in Asia Minor.

Type :—*Helix tentaculata*, Linnæus.

(*Helix*, *Nerita*, *Turbo*, *Cyclostoma*, *Paludina*, vett. auctt.)

1818. *Bithynia* : LEACH, in Abel's *Narrative of a Journey in . . . China*, p. 362.  
 1821. *Bithynia*, subg. of *Paludina* : GRAY, *Lond. Med. Repos.*, xv, p. 239.  
 1850. *Bythinia*, Gray : STEIN, *Lebend. Schneck, & Musch. Berlins*, p. 92.  
 1856. *Elona*, subg. of *Bythinia* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 527.  
 1870. *Bytinia* : MILLET, *Faune Invert. Maine-et-Loire*, i, p. 56.  
 1870. *Grayana*, subg. of *Bithynia* : BETTA, *Atti Accad. Agric. Verona*, xlvii, mem. p. 113.

1. ***Bithynia tentaculata*** (Linnæus).

Etym. :—Low Lat. *tentaculum*, a feeler.

1758. *Helix tentaculata* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 774, no. 616.  
 1767. *Helix tentaculata* : LINNÆUS, *o. c.*, ed. 12, p. 1249, no. 707.



1767. *Nerita tentaculata*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 114.
1774. *Nerita jaculator*: MÜLLER, *Verm. Hist.*, ii, p. 185.
1777. *Helix tentaculata*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 140; 4to, p. 122, pl. lxxxvi, f. 140.
1778. *Turbo nucleus*: DACOSTA, *Test. Brit.*, p. 91, pl. v, f. 12.
1791. *Helix tentaculata*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3662, no. 146.
1799. *Helix tentaculata*: PULTENEY, *Cat. Dorset.*, p. 49.
- 1801, }  
Apr. } *Bulinus tentaculata*, Lin. : POIRET, *Coq. Aisne*, p. 61.
- 1801, }  
July } *Cyclostoma impurum*: DRAPARNAUD, *Tabl. Moll. France*, p. 41.
- 1801 *Turbo janitor*: VALLOT, *Exer. Hist. Nat.*, p. 6.
1803. *Nerita Jaculatrix*: SCHRANK, *Fauna Boica*, p. 290.
1803. *Helix tentaculata*, Lin. : MONTAGU, *Test. Brit.*, p. 389.
1805. *Cyclostoma impurum*: DRAPARNAUD, *Hist. Moll. France*, p. 36, pl. i, f. 19 & 20.
1807. *Cyclostoma jaculator*, Müll. : FÉRUSSAC, *Essai méthod. Conch.*, p. 66.
1807. *Helix tentaculata*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 220.
1812. *Paludina impura*, Drap. : FÉRUSSAC, *Ann. Mus. Hist. Nat. Paris*, xix, p. 253.
1813. *Helix tentaculata*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 56, pl. xxi, f. 12.
- 1813? *Lymnæa tentaculata*: FLEMING, *Edinb. Ency.*, vii, p. 78.
1817. *Helix tentaculata*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 968.
1817. *Paludinum impurum*: JURINE, *Helvet. Almanach*, 1817, p. 34.
1818. *Bithynia tentaculata*, Linn. : LEACH, in Abel's *Narr. Journ. in China*, p. 362.
1820. *Paludina jaculator*: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91. (In reprint, "Syst. Verzeichn.," p. 22.)
1821. *Paludina impura*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 104, pl. iv, f. 40 & 41.
1823. *Helix tentaculata*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1823. *Turbo tentaculatus*: SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 152.
1826. *Bithynia jaculator*, Mull. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 100.
1826. *Valvata minuta* (Drap.): RISSO, *t. c.*, p. 101. [*Teste Caziot.*]
1827. *Paludina impura*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 72 & 73.
1828. *Paludina tentaculata*: FLEMING, *Brit. Anim.*, p. 315.
1831. *Paludina impura*: TURTON, *Manual*, p. 134, f. 120.

1840. } *Bithinia tentaculata*, Linn. : GRAY, in Turton's *Manual*  
Apr. } new ed., p. 93, pl. x, f. 120.
- Post }  
Sept. } *Paludina impura*, Lamarck : BROWN, *Illust. Conch. Brit.*  
1840. } ed. 2, p. 27, pl. xiv, f. 72 & 73.
1845. *Paludina impura*, Lamarck : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 4, pl. i, f. 8 & 9.
1850. } *Bithinia tentaculata*, Linn. : FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iii, p. 14, pl. lxxi, f. 5 & 6.
1850. *Bythinia tentaculata*, Linn. : STEIN, *Lebend. Schneck. &*  
*Musch. Berlins*, p. 92, pl. iii, f. 3.
1852. *Bithynia jaculator* : LEACH, *Moll. Brit. Synop.*,  
p. 209.
1856. *Bythinia (Elona) tentaculata*, Linn. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 528, pl. xxxix,  
f. 23-44.
1857. *Bithinia tentaculata*, Linn. : GRAY, in Turton's *Manual*,  
new ed., p. 26, pl. x, f. 120.
1862. *Bythinia tentaculata*, Linné : JEFFREYS, *Brit. Conch.*,  
i, p. 60; v, pl. iv, f. 4.
1863. *Bythinia tentaculata*, Linnæus : REEVE, *L. & F.-W.*  
*Moll. Brit. Is.*, p. 189, figs.
1870. *Bythinia (Grayana) tentaculata*, Linn. : BETTA, *Atti*  
*Accad. Agric. Verona*, xlvii, mem. p. 115.
1870. *Bytinia* [sic] *tentaculata*, Linn. : MILLET, *Faune Invert.*  
*Maine-et-Loire*, i, p. 56.
1882. *Bythinia sebthina*, Blanc : COUTAGNE, *Ann. Soc. Linn.*  
*Lyon*, xxviii, p. 24.
1884. *Bythinia gravida* : RAY, *Bull. Soc. Malac. France*, i, p.  
155.
1884. *Bythinia ardussonica* : RAY, *t. c.*, p. 156.
1886. *Bythinia (Elona) allopoma*, West. : WESTERLUND, *Fauna*  
*Palaæart. Region*, vi, p. 15.
1886. *Bythinia gravida*, Ray : WESTERLUND, *t. c.*, p. 16.
1893. *Bythinia Stramicensis* : LOCARD, *Échange*, ix, p. 4.  
(Figd. in *Rev. Suisse Zool.*, ii, pl. v, f. 16.)  
[Teste Germain.]
1893. *Bythinia potamica*, nov. sp. : LOCARD, *Coq. Eaux douces*  
*France*, p. 73. (Also in *Ann. Soc. Agric.*  
*Lyon*, i, 1894, p. 73.) [Teste Germain.]
1893. *Bythinia parva*, nov. sp. : LOCARD, *t. c.*, p. 74. (Also  
in *Ann. Soc. Agric. Lyon*, i, 1894, p. 74.)  
[Teste Germain.]
1894. *Bythinia decipiens*, Millet : LOCARD, *Rev. Suisse Zool.*,  
ii, p. 84, pl. v, f. 6. [Non Millet.]

First described as British in 1674, by M. Lister (*Phil.*  
*Trans.*, ix, p. 99, pl. ii, f. 19).

British Distribution in Time : Pliocene to Recent.



2. *Bithynia leachii* (Sheppard).

Etym. :—Named in honour of the naturalist W. E. Leach.

1821. *Paludina* (*Bithynia*) *ventricosa* : GRAY, *Lond. Med. Repos.*, xv, p. 239. [*Nom. nud.*]
1823. *Turbo Leachii* : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 152.
1827. *Paludina ventricosa*, BROWN'S MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 74 & 75.
- ?1828. *Paludina acuta* (Drap.) : FLEMING, *Hist. Brit. Anim.*, p. 315.
1831. *Paludina similis*, Drap. : TURTON, *Manual*, p. 135, f. 121. [*Non Drap.*]
- ?1831. *Paludina viridis*, Drap. : TURTON, *o. c.*, p. 135.
1835. *Paludina Kickxii*, nob. : WESTENDORP, *Bull. Acad. Sci. Bruxelles*, ii, p. 337, pl. iv, f. 1.
1840. *Paludina ventricosa*, Gray : GRAY, in *Turton's Manual*, new ed., p. 94, pl. x, f. 121 & 128.
- Post Sept. 1840. } *Paludina ventricosa*, Leach : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 27, pl. xiv, f. 74 & 75.
1843. *Paludina decipiens* : MILLET, *Mag. Zool.*, Classe V, pl. lxiii, f. 2.
1845. *Paludina inflata*, n. s. : HANSÉN, *Öfvers. K. Vet. Akad. Förhandl. Stockholm*, ii, p. 254. [*Fide Mörch.*]
1845. *Paludina ventricosa*, Leach : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 5, pl. i, f. 10 & 11.
1845. *Paludina Michaudii*, Duval : DUVAL, *Rev. Zool. Soc. Cuv.*, 1845, p. 211.
1849. *Bithynia Kickxii*, West. : DUPUY, *Cat. Extramar. Gall. Test.* [p. 1], no. 41.
1849. *Bithynia Michaudii*, Duv. : DUPUY, *o. c.* [p. 1], no. 43.
1850. *Bithynia Leachii*, Sheppard : FORBES & HANLEY, *Brit. Moll.*, iii, p. 16, pl. lxxi, f. 7 & 8.
- [These authors received examples of this species from Philippi under the name of *Paludina Troscheliana*.]
1852. *Bithynia Leachii*, Shep. : LEACH, *Moll. Brit. Synop.*, p. 209.
1856. *Bythinia* (*Elona*) *Leachii*, Shepp. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 527, pl. xxxix, f. 20-22.
1857. *Bithynia ventricosa*, Gray : GRAY, in *Turton's Manual*, new ed., p. 26, pl. x, f. 121 & 128.
1862. *Bythinia Leachii*, Sheppard : JEFFREYS, *Brit. Conch.*, i, p. 61; v, pl. iv, f. 5.
1863. *Bythinia Leachii*, Sheppard : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 190, figs.
1870. *Bythinia* (*Grayana*) *ventricosa*, Gray : BETTA, *Atti Accad. Agric. Verona*, xlvii, mem. p. 114.
1870. *Bytinia* [sic] *ventricosa*, Gray : MILLET, *Faune Invert. Maine & Loire*, i, p. 56.

First described as British in 1821, by J. E. Gray, as  
*Paludina ventricosa*. (See ref. above.)  
 British Distribution in Time: Pleistocene to Recent.

(Sub-fam. : PALUDESTRININÆ.)

Genus : 2. **PALUDESTRINA**, Orbigny.

Etym. :—Lat., from *paludester*, marshy.

Type :—*Cyclostoma acutum*, Draparnaud = *Turbo ventrosus*,  
 Montagu.

(*Turbo*, *Cyclostoma*, *Paludina*, etc., vett. auctt.)

1821. *Hydrobia* : HARTMANN, *Neue Alpina*, i, p. 258. [Genus defined in Sturm's *Deutschl. Fauna*, vi, hft. 5, 1821, p. 47.] [*Non Hydrobius*, Leach, 1817 (Coleop.).]
1827. *Pyramis* [pars] : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. 1, explan. [*Non* Bolten, 1798; *nee* Schumacher, 1817; *nee* Otto, 1821 (Medus.).]
1828. *Cingula* [pars] : FLEMING, *Brit. Anim.*, p. 305. [When originally established in 1818 (Suppt. 4-6th ed. *Ency. Brit.*, iii, p. 311) the genus did not include shells of this group.]
1840. *Paludestrina* : ORBIGNY, *Voy. Amér. mérid.*, v, pt. 3, Moll., p. 381.
1847. *Sabanaxa* [pars] : LEACH (MS. 1818, published by J. E. Gray) *Ann. & Mag. Nat. Hist.*, xx, p. 270.
1851. *Subulina* : A. SCHMIDT, *Verhandl. Naturh. Ver. Preuss. Rheinl. & Westphal.*, viii, p. 332. [*Non* Beck, 1837 (Achatin.).]

1. **Paludestrina ventrosa** (Montagu).

Etym. :—Lat. *ventrosus*, belying out.

- ?1765. *Turbo stagnalis* : BASTER, *Opusc. Subsec.*, ii, p. 77, pl. vii, f. 4. [Both description and figure are inadequate for determination. It has been identified with the *Turbo ulva* of Pennant, but the sole species present to-day at the type locality (Zierikzee, near the mouth of the Scheldt) is *P. ventrosa* (Mont.). Linné included it in the 12th ed. of his *Systema Naturæ* (p. 1248, no. 697) as *Helix stagnalis*. Afterwards, noticing that he had already used the name (= *Limnæa stagnalis*), he altered it in manuscript in his own copy to *Helix Basteri*. Gmelin, in *Linn. Syst. Nat.*, ed. 13 (i, pt. 6, 1791, p. 3653, no. 119), changed the trivial name to *stagnorum*.]

1803. *Turbo ventrosus* : MONTAGU, *Test. Brit.*, p. 317, pl. xii, f. 13.
1805. *Cyclostoma acutum* : DRAPARNAUD, *Hist. Moll. France*, p. 40, pl. i, f. 23.
1807. *Turbo ventrosus*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 164.
- ?1810. *Turbo muriaticus* : BEUDANT, *Ann. Mus. Hist. Nat. Paris*, xv, p. 201. [*Fide* Alder.]
1813. *Turbo ventrosus* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 49, pl. xviii, f. 12, A.
1817. *Turbo ventrosus*, Mont. : DILLWYN, *Cat. Shells*, ii, p. 840.
1817. *Helix stagnorum*, Gmelin : DILLWYN, *l. c.*, p. 952.
1821. *Hydrobia acuta*, Drap. : HARTMANN, *Neue Alpina*, i, p. 258.
1821. *Paludina (Bithinia) ventricosa* : GRAY, *Lond. Med. Repos.*, xv, p. 239.
- ?1823. *Paludina octona*, Linn. : NILSSON, *Hist. Moll. Svcc.*, 1822 [*i. e.* 1823], p. 92. [*Non* Linné.]
1827. *Paludina acuta*, Nob. : DES MOULINS, *Bull. Soc. Linn. Bordeaux*, ii, p. 67.
1827. *Pyramis ventrosus*, Montagu : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. li, f. 27 & 59.
1828. *Cingula ventricosa* : FLEMING, *Hist. Brit. Anim.*, p. 307.
1831. *Paludina stagnorum* : TURTON, *Manual*, p. 136, f. 123.
- Pre Mar. } *Rissoa ventricosa*, Fleming : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 12, pl. viii, f. 27 & 59.
1838. }
1840. *Littorina muriatica*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 88. [*Non* Linné.]
1843. *Rissoa muriatica* : MACGILLIVRAY, *Hist. Moll. Aberdeen*, p. 148.
1843. *Rissoa ventricosa* : MACGILLIVRAY, *l. c.*
- ?1844. *Cingula pellucida*, Bean MS. : THORPE, *Brit. Mar. Conch.*, p. xliii.
1847. *Sabanæa ventrosa*, Mont. : LEACH [MS. 1818], published by Gray, *Ann. & Mag. Nat. Hist.*, xx, p. 270.
1850. *Rissoa ventrosa*, Montagu : FORBES & HANLEY, *Brit. Moll.*, iii, p. 138, pl. lxxxvii, f. 1, 5, 6, & 7.
1851. *Subulina acuta*, Drap. : SCHMIDT, *Verhandl. Naturh. Ver. Preuss. Rheinl. & Westphal.*, viii, p. 332.
1852. *Sabanæa cburna*, Adams : LEACH, *Moll. Brit. Synop.*, p. 149.  
[The *Turbo cburneus* (Jacobs MS.) Kanmacher, in Adams' *Essays*, here adopted by Leach, was probably a marine shell.]
1856. *Bythinia acuta* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 506.
1857. *Littorina muriatica*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 24. [*Non* Linné.]

1862. *Hydrobia ventrosa*, Montagu : JEFFREYS, *Brit. Conch.*, i, p. 66; v, pl. iv, f. 7.  
 1912. *Hydrobia stagnalis*, Baster : DOLLFUS, *Journ. de Conchyl.*, lix, p. 238, pl. v, f. 1-4.  
 1913. *Paludestrina acuta* : GERMAIN, *Moll. France*, ii, p. 305.  
 1917. *Paludestrina minuta* (Totten) : KENNARD & WOODWARD, *Proc. Malac. Soc.*, xii, p. 124. [*Non Totten.*]

[GERMAIN (*Moll. France*, ii, p. 305) cites as synonyms :—*Paludestrina procerula*, Palad.; *P. Coutagnei*, Bourg.; *P. Moitessieri*, Bourg.; *P. spiroxia*, Bourg.; *P. aciculina*, Bourg.; *P. gracillima*, Bourg.; *P. soluta*, Bourg.; *P. euryomphala*, Bourg.; *P. Panescorsei*, Béreng.; and *P. Azami*, Béreng.] :

First recorded as British in 1784, by Boys & Walker (*Test. minut. rar.*, p. 10, pl. ii, f. 36).

British Distribution in Time : Pliocene to Recent.

## 2. *Paludestrina jenkinsi* (Smith).

Etym. :—Named in honour of Mr. A. J. Jenkins, who rediscovered it.

1852. *Rissoa ventricosa*, var. : FORBES & HANLEY, *Brit. Moll.*, iv, p. 266, pl. cxxxiii, f. 7.  
 ?1859. *Rissoa castanea* ? Jeff. [MS.] : SOWERBY, *Illust. Index Brit. Shells*, pl. xiv, f. 11. [*Sine descr.*]  
 ?1862. *Rissoa castanea* : JEFFREYS, *Brit. Conch.*, i, p. 69.  
 1862. *Hydrobia Ferussina* : JEFFREYS, *l. c.*  
 1889. *Hydrobia jenkinsi* : SMITH, *Journ. of Conch.*, vi, p. 142.  
 1889. *Hydrobia ventrosa*, var. *carinata* : MARSHALL, *Journ. of Conch.*, vi, p. 141.  
 1891. *Hydrobia jenkinsi* : SMITH & CROUCH, *Esscæ Natural.*, iv, p. 10; figured on p. 12.  
 1892. *Paludestrina jenkinsi*, Smith : B. B. WOODWARD, *Ann. & Mag. Nat. Hist.*, Ser. VI, vol. ix, p. 376.

First described as British in 1852, by Forbes & Hanley, as *Rissoa ventricosa*, var. (See ref. above.)

British Distribution in Time : Holocene to Recent.

## Genus : 3. PERINGIA, Paladilhe.

Etym. :—Named in honour of a family of London friends.

Type :—*Turbo ulva*, Pennant.

(*Turbo*, *Helix*, *Pyramis*, *Cingula*, *Rissoa*, *Hydrobia*, vett. auctt.)

1828. *Cingula* [pars] : FLEMING, *Brit. Anim.*, p. 305. [When the genus was originally established in 1818 (Suppt. 4-6th ed. *Ency. Brit.*, iii, p. 311) the present group was not included.]

1842. *Sabinea*: G. B. SOWERBY (II), *Conch. Manual*, ed. 2, p. 250. [*Non* Owen, 1835 (Crust.).]  
 1847, } *Sabanæa* [pars]: LEACH [MS. 1818], published by Gray,  
 Oct. } *Ann. & Mag. Nat. Hist.*, xx, p. 270.  
 1847, { *Sabinea*, "Leach MSS., 1819, Sow. 1842" as a subg. of  
 Nov. } *Hydrobia*: GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 151.  
 1852. *Sabanæa* [pars]: LEACH, *Moll. Brit. Synop.*, p. 148.  
 1874. *Peringia*: PALADILHE, *Ann. Sci. Nat. (Zool.)*, Sér. VI, tom. i, art. 2, p. 7.

### 1. *Peringia ulvæ* (Pennant).

Etym.:—Lat. *ulva*, an aquatic plant, a name subsequently applied to a genus of Algæ.

[For note concerning the identification of this species with Baster's *Turbo stagnalis*, See under PALUDESTRINA VENTROSA.]

1777. *Turbo ulvæ*: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 132; 4to, p. 114, pl. lxxxvi, f. 120.  
 1778. *Turbo ulvæ* (Penn.): DACOSTA, *Test. Brit.*, p. 105.  
 1799. *Helix ulvæ*: PULTENEY, *Cat. Dorset.*, p. 49.  
 1803. *Turbo ulvæ*: MONTAGU, *Test. Brit.*, p. 318.  
 1807. *Turbo ulvæ*, Pennant: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 164.  
 1813. *Turbo ulvæ*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 49, pl. xviii, f. 12.  
 1817. *Turbo ulvæ*, Penn.: DILLWYN, *Cat. Shells*, ii, p. 840.  
 1824. *Helix Jeverana*: MEGERLE, *Verhandl. Gesell. Naturf. Freunde Berlin*, i, st. 4, p. 215.  
 1827. *Pyramis ulvæ*, Brown's MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. 1, f. 9, 14, 15 & 41.  
 1828, } *Paludina ulvæ*, Penn.: FORBES, *Malac. Monensis*, p. 18.  
 Feb. }  
 1828. *Cingula ulvæ*, Penn.: FLEMING, *Brit. Anim.*, p. 308.  
 1828. *Helix ieverensis*, Schröter: MENKE, *Synop. Moll.*, p. 23.  
 1834. *Rissoa subumbilicata*: BERKELEY, *Zool. Journ.*, v, p. 430, pl. xix, f. 5.  
 Pre } *Rissoa ulvæ*, Montagu: BROWN, *Illust. Conch. Brit.*,  
 Mar. } ed. 2, p. 12, pl. ix, f. 9, 14, 15 & 41.  
 1838, }  
 1842. *Littorina ulvæ*: JOHNSTON, *Hist. Berwick Club*, i, pt. 9, p. 269.  
 1842. *Sabinea ulvæ*: G. B. SOWERBY (II), *Conch. Manual*, ed. 2, p. 250.  
 1845. *Melania Charreyi*, spec. nov.: MORELET, *Descr. Moll. Port.*, p. 97, pl. vii, f. 5.  
 1847, } *Rissoa Barleci*: JEFFREYS, *Ann. & Mag. Nat. Hist.*,  
 July. } xix, p. 310.

- 1847, } *Sabanca ulva*, Mont. : LEACH [MS. 1818], published by  
Oct. } Gray, *Ann. & Mag. Nat. Hist.*, xx, p. 270.
- 1847, } *Hydrobia* (*Sabinea*) *Ulva* [sic] : GRAY, *Proc. Zool. Soc.*  
Nov. } Lond., xv, p. 151.
1850. *Rissoa ulva*, Pennant : FORBES & HANLEY, *Brit. Moll.*,  
iii, p. 141, pl. lxxxvii, f. 2 & 8.
1852. *Sabanca ulva*, Penn. : LEACH, *Moll. Brit. Synop.*,  
p. 153.
1853. *Paludina stagnalis*, Baster : KUESTER, in Martini &  
Chemnitz, *Syst. Conch. Cab.*, new ed., Bd. i,  
abth. 21, *Palulina*, p. 69, pl. xii, f. 27-30.
1855. *Paludinella ulva* : JEFFREYS, in Clark, *Ann. & Mag.*  
*Nat. Hist.*, Ser. II, vol. xvi, p. 120.
1863. *Hydrobia ulva*, Penn. : FRAUENFELD, *Verhandl. k. k.*  
*zool.-bot. Gesell. Wien*, xiii, p. 1019.
- 1867, } *Assiminea gallica* : PALADILHE, *Rev. & Mag. Zool.*, Sér.  
Feb. } II, tom. xix, p. 40, pl. xx, f. 1-6.
1867. *Hydrobia ulva*, Pennant : JEFFREYS, *Brit. Conch.*, iv,  
p. 52 ; v, pl. lxi, f. 1-3.
1874. *Peringia ulva*, Penn. : PALADILHE, *Ann. Sci. Nat. (Zool.)*,  
Sér. VI, tom. i, art. 2, p. 7.
1874. *Peringia pictorum* : PALADILHE, *t. c.*, p. 9, pl. iii, f. 29-30.
1874. *Peringia Girardoti* : PALADILHE, *t. c.*, p. 11, pl. iii, f. 31  
& 32.
1874. *Peringia Margaritæ* : PALADILHE, *t. c.*, p. 24, pl. iii, f. 33  
& 34.
1877. *Hydrobia stagnalis*, Baster : CLESSIN, *Deutsch. Excur.*  
*Moll. Fauna*, p. 322, f. 176.
1877. *Hydrobia balthica*, Nilson [sic] : CLESSIN, *o. c.*, p. 323,  
f. 177.
1901. *Paludestrina stagnalis* (Baster) : CONCHOLOGICAL SOCIETY  
*Journ. of Conch.*, x, p. 18.

[GERMAIN (*Moll. France*, ii, p. 306) cites as synonyms :—  
*Peringia Sequanica*, Bourg. ; *P. enhalia*, Mab. ; *P.*  
*Fagoti*, Mab. ; *P. Deyrollei*, Mab. ; *P. subumbilicata*,  
Palad. ; *P. Bourguignati*, Mab. ; *P. girundica*, Mab. ;  
*P. nansoutiana*, Bourg. ; *P. Dupuyi*, Mab. ; *P.*  
*Perrieri*, Bourg. ; *P. micropoleura*, Bourg. ; *P. micro-*  
*stoma*, Bourg. ; *P. obesa*, Mab. ; *P. maritima*, Mab.]

First recorded as British in 1777, by T. Pennant as *Turbo*  
*ulva*. (See ref. above.)

British Distribution in Time : Pliocene to Recent.

#### Genus : 4. BELGRANDIA, Bourguignat.

Etym. :—Named in honour of the French engineer, E. Belgrand.  
Type :—*Cyclostoma gibbum*, Draparnaud.  
(*Cyclostoma*, *Paludina*, *Hydrobia*, vett. auctt.)



1869. *Belgrandia*: BOURGUIGNAT, *Cat. Moll. envir. Paris*, p. 14.  
 1878. *Thermhydrobia*: PAULUCCI, *Mat. Faune Malac. Ital.*,  
 p. 48. [The sole species cited is "*T. thermalis* (Turbo) Linné"; but Dollfus (*Journ. de Conchyl.*, lix, 1912, p. 215) selects as type *Paludina marginata*, Michaud.]

1. †***Belgrandia marginata*** (Michaud).

Etym. :—Lat. *marginatus*, bordered.

1831. *Paludina marginata*: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 98, pl. xv, f. 58 & 59.  
 1839. *Paludina minuta* (Strickland): MURCHISON, *Silurian System*, p. 555. [*Nom. nud.*]  
 1856. *Bythinia* (*Bythinella*) *marginata*, Mich.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 518, pl. xxxviii, f. 29–32.  
 1858. *Paludina minuta*, Strickl.: JARDINE'S *Memoirs of H. E. Strickland*, pp. 96 & 97.  
 1870. *Belgrandia marginata*: PALADILHE, *Ann. Malac.*, i, p. 232.  
 1880. *Belgrandia nana*, Sandb.: SANDBERGER, *Palacontogr.*, xxvii (N.F. vii), p. 99, pl. xii, f. 5–5 b.  
 1881. *Hydrobia* (*Bythinella*) *marginata*, Mich.: KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 141.  
 1886. *Paludinella* (*Belgrandia*) *marginata*, Mich.: WESTERLUND, *Fauna Paläurct. Region*, vi, p. 47.  
 1912. *Thermhydrobia marginata*, Michaud: DOLLFUS, *Journ. de Conchyl.*, lix, p. 215.

First recorded as British in 1839, by Murchison. (See ref. above.)

British Distribution in Time: Pleistocene.

Genus: 5. **BYTHINELLA**, Moquin-Tandon.

Etym. :—Dimin. of *Bythinia* [i.e. *Bithynia*] a genus of mollusks.  
 Type :—*Cyclostoma viride* (Poiret) Draparnaud. [Dollfus selected the *Bulimus viridis* of Poiret, but the identity of this is uncertain. Draparnaud's interpretation is here accepted.]  
 (*Bulimus*, *Cyclostoma*, *Turbo*, *Paludina*, *Bithynia*, *Hydrobia*, vett. auctt.)

1826. *Leachia* [pars]: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 102. [*Non* Lesueur, 1821 (Cephal.).]  
 1856. *Bythinella*, subg. of *Bythinia*: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 516. [The reference usually given is to *Journ. de Conchyl.*, ii, 1851, p. 239 note; but the name appears there only in the vernacular.]

1878. *Frauenfeldia* : CLESSIN, *Nachrbl. Deutsch. Malak. Gesell.*, x, p. 130.  
 ?1902. *Pannonia*, subg. of *Hydrobia* : LÖRENTHEY, *Palaeontogr.*, xlviii, p. 229.  
 1914. *Bithynella* : KENNARD & WOODWARD, *List. Brit. Non-mar. Moll.*, p. 11.

1. †**Bythinella steinii**, Martens.

Etym. :—Named in honour of the German malacologist, J. P. E. F. Stein.

1858. *Hydrobia Steini* : E. v. MARTENS, *Arch. f. Naturg.*, xxiv, p. 183, pl. v, f. 5.  
 1864. *Paludinella Steini*, v. Mart. : FRAUENFELD, *Verhandl. k. k. zool.-bot. Gesell. Wien*, xiv, p. 648.  
 1873. *Hydrobia (Bythinella) Steini*, v. Mart. : WESTERLUND, *Fauna Moll. Svec.*, p. 468.  
 1877. *Bythinella Steini*, v. Martens : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 326, f. 178.  
 1886. *Paludinella (Hydrobia) steini*, Mts. : WESTERLUND, *Fauna Paläarct. Region*, vi, p. 38.  
 1914. *Bithynella steinii*, von Martens : KENNARD & WOODWARD, *List Brit. Non-mar. Moll.*, p. 11.

First recorded as British in 1880, by C. L. F. von Sandberger (*Palaeontographica*, xxvii (N.F. vii), p. 98).  
 British Distribution in Time : Cromerian.

(Sub-fam. : LITHOGLYPHINÆ.)

Genus : 6. **PSEUDAMNICOLA**, Paulucci.

Etym. :—Gr. *ψευδής*, false + *Annicola*; resembling the genus *Annicola*.

Type :—*Bythinia lucensis* (Stab.) Issel.

(*Cyclostoma*, *Turbo*, *Paludina*, *Bythinia*, *Annicola*, etc., vett. auctt.)

1878. *Pseudamnicola* : PAULUCCI, *Matériaux Faune Malac. Ital.*, p. 48, in text.

1. **Pseudamnicola confusa** (Frauenfeld).

Etym. :—Lat. *confusus*, confused [with something else].

- ?1805. *Cyclostoma anatinum* : DRAPARNAUD, *Hist. Moll. France*, p. 37, pl. i, f. 24 & 25.  
 ?1810. *Turbo muraticus* : BEUDANT, *Ann. Mus. Hist. Nat. Paris*, xv, p. 201. [*Fide* Lamarek.]  
 ?1821. *Paludina anatina* : HARTMANN, *Neue Alpina*, i, p. 258.



- ?1823. *Paludina balthica*: NILSSON, *Hist. Moll. Secc.*, 1822  
[i.e. 1823], p. 91.
- ?1826. *Paludina muriatica*: BLAINVILLE, *Dict. Sci. Nat.*,  
xxxvii, p. 303.
1840. *Littorina anatina*, Drap.: GRAY, in Turton's *Manual*,  
new ed., p. 87.
1850. *Russoa anatina*, Draparnaud: FORBES & HANLEY, *Brit.*  
*Moll.*, iii, p. 134, pl. lxxxvii, f. 3 & 4.
- ?1852, } *Bythinia inflata*: LEACH, *Moll. Brit. Synop.*, p. 210.  
Feb. } [Teste Gray 1857.]
1852. *Paludina similis*, Draparnaud: KÜSTER, in Martini  
*Conch. Cab., Paludina*, p. 55, pl. x, f. 25  
& 26. [Teste Frauenfeld.]
- ?1856. *Bythinia anatina*, Drap.: MOQUIN-TANDON, *Hist. Moll.*  
*France*, ii, p. 506.
1857. *Littorina anatina*, Drap.: GRAY, in Turton's *Manual*,  
new ed., p. 24.
1862. *Hydrobia similis*, Draparnaud: JEFFREYS, *Brit. Conch.*,  
i, p. 64; v, pl. iv, f. 6.  
[According to Jeffreys (l. c.) *Cyclostoma anatinum*, Drap.  
= *Turbo ulvæ*, Pennant.]
- 1863, } *Bythinia similis*, Draparnaud: REEVE, *L. & F.-W.*  
Jan. } *Moll. Brit. Is.*, p. 188, figs.
- Post }  
Apr. } *Amnicola confusa*: FRAUENFELD, *Verhandl. k. k. zool.-*  
1863. } *bot. Gesell. Wien*, xiii, p. 1029.
1884. *Hydrobia (Pseudamnicola) similis*, Drap.: NEVILL, *Hand*  
*List Indian Mus.*, ii, p. 55.
- ?1886. *Paludinella (Pseudamnicola) anatina*, Drp.: WESTER-  
LUND, *Fauna Paläarct. Region*, vi, p. 69.
- ?1902. *Pseudamnicola anatinum*, Drp.: WESTERLUND, *Rad.*  
*Jugoslav. Akad.*, cli, p. 129.
1902. *Paludestrina confusa* (Frauenfeld): CONCH. SOC., *List.*  
*Brit. Mar. Moll.*, p. 11.
- ?1913. *Amnicola anatina*, Draparnaud: GERMAIN, *Moll. France*,  
ii, p. 291.
1914. *Pseudamnicola confusa* (Frauenfeld): KENNARD &  
WOODWARD, *List Brit. Non-mar. Moll.*,  
p. 11.

[GERMAIN (*Moll. France*, ii, p. 291), under *Amnicola anatina*, cites as synonyms:—*A. Emiliana*, Palad.; *A. sarahæ*, Pal.; and *A. spirata*, Palad. = *A. subproducta*, Palad.]

According to JEFFREYS (*Brit. Conch.*, v, p. 151)

*Bythinia Baudoniana*, Gassies, is also a synonym.]

First described as British in 1840, by J. E. Gray, as  
*Littorina anatina*, Drap. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

Genus : 7. **AMNICOLA**, Gould & Haldeman.

Etym. :—Lat. *ammicola*, dwelling by a river.

Type :—*Paludina porata*, Say.

(*Cyclostoma*, *Paludina*, vett. auctt.)

1840. *Ammicola* : GOULD & HALDEMAN, in Haldeman, *Monog. Limniades*, i, wrapper p. iii and viii, 1845, p. 4. (Cf. also Gould, *Rept. Invert. Massachusetts, Moll.*, 1841, p. 228.)

1. **Ammicola taylori**, Smith.

Etym. :—Named in honour of its discoverer, Mr. Fred Taylor.

1901. *Paludestrina Taylori*, n. sp. : SMITH, *Ann. & Mag. Nat. Hist.*, Ser. VII, vol. vii, p. 192.

1914. *Ammicola taylori* (Smith) : KENNARD & WOODWARD, *List Brit. Non-mar. Moll.*, p. 11.

First described as British in 1901, by E. A. Smith, as *Paludestrina*. (See ref. above.)

British Distribution in Time : Recent.

(Sub-fam. : STENOTHYRINÆ.)

Genus : 8. **NEMATURELLA**, Sandberger.

Etym. :—Dimin. of *Nematura*, a genus of mollusks.

Type :—*Nematurella flexilabris*, Sandberger.

1875. *Nematurella* : SANDBERGER, *Land- & Süsww.-Conch. Vorwelt*, p. 575.

1. †**Nematurella runtoniana**, Sandberger.

Etym. :—Named after Runton, Norfolk, the place of its occurrence.

1880. *Nematurella Runtoniana*, Reid [MS.] : SANDBERGER, *Palacontogr.*, xxvii (N.F. vii), p. 98, pl. xii, f. 6-6 b.

1890. *Hydrobia runtoniana* : REID, *Pliocene Depos. Brit.* (Mem. Geol. Surv.), p. 156.

1890. *Nematura runtoniana* : REID, *o. c.*, p. 183 (& p. 229).

1890. *Nematura runtoniana*, Sandb. : REID, *o. c.*, pl. v, f. 10, explan.

1901. *Nematurella stenostoma*, n. sp. : NORDMANN, *Medd. Dansk Geol. Foren.*, viii, p. 27, figs. 4-6.

First described as British in 1840, by Sir C. Lyell (*Lond. & Edinb. Phil. Mag.*, Ser. III, vol. xvi, p. 363) as "spec. allied to *Turbo ulvæ*."

British Distribution in Time : Cromerian.

## Fam. : VALVATIDÆ.

## Genus : 1. VALVATA, Müller.

Etym. :—Lat. *valvatus*, having a folding door (i.e. *operculum*).

Type :—*Valvata cristata*, Müller.

(*Nerita*, *Turbo*, *Cyclostoma*, vett. auctt.)

1774. *Valvata* : MÜLLER, *Verm. Hist.*, ii, p. 198.  
 1806. *Valvearius* : FRORIEP, in Duméril, *Analyt. Zool.*, p. 165.  
 \*1810. *Cincinna* : HUEBNER, Epist., i (*Teste Menke, Zeitschr. f. Malak.*, v, 1848, p. 56.)  
 1833. *Gyrorbis* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 117.  
 [Non Moquin-Tandon, 1856.]  
 1838. *Planclla*, as subg. of *Valvata* : SCHLUETER, *Kurz. Syst. Verzeichn.*, p. 13.  
 1854. *Concinna*, Hueb. : H. & A. ADAMS, *Genera Moll.*, i, p. 343, in synonym.  
 1864. *Tropidina*, Ad., as subg. of *Valvata* : MÖRCH, *Vidensk. Meddel. Naturh. Foren. Kjöbenhavn*, 1863 (1864), p. 320. [Non Adams, 1854; nec Westerlund, 1886.]  
 1864. *Cincinna*, Hübner, as subg. of *Valvata* : MÖRCH, *t. c.*, p. 321.  
 1870. *Valvatinella*, subg. of *Valvata* : BETTA, *Atti Accad. Agric.*  
 1870. *Planorbitina*, subg. of *Valvata* : Verona, xlvii, mem., p. 127.

1. *Valvata piscinalis* (Müller).

Etym. :—Lat. *piscinalis*, pertaining to a pond.

1774. *Nerita piscinalis* : MÜLLER, *Verm. Hist.*, ii, p. 172.  
 1789. *Nerita obtusa* : STUDER, in Coxe, *Trav. in Switzerld.*, iii, p. 391.  
 1791. *Helix piscinalis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3627.  
 1799. *Turbo fontinalis* : PULTENEY, *Cat. Dorset.*, p. 45.  
 ?1801, } *Turbo cristata* : POIRET, *Coq. Aisne*, p. 29.  
 Apr. }  
 1801, } *Cyclostoma obtusum* : DRAPARNAUD, *Tabl. Moll. France*,  
 July. } p. 39.  
 1803. *Turbo fontinalis*, Pult. : MONTAGU, *Test. Brit.*, p. 348.  
 1805. *Cyclostoma obtusum* : DRAPARNAUD, *Hist. Moll. France*, p. 33, pl. i, f. 14.  
 1807. *Valvata piscinnalis* [sic], Müll. : FÉRUSSAC, *Essai méthod. Conch.*, p. 75.  
 1807. *Nerita valvata*, Geoff. : G. HARTMANN, *Alpina*, ii, p. 234.  
 [Geoffroy did not give a Latin name to this species.]

1807. *Turbo fontinalis* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 168.
1812. *Helix fascicularis*, Geoffroy : ALTEN, *Syst. Abhandl.*, p. 74, pl. viii, f. 16. [Non Geoffroy.]
1813. *Turbo fontinalis* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 50, pl. xviii, f. 3 & 4.
- 1813? *Lymnca fontinalis* : FLEMING, *Edinb. Ency.*, vii, p. 78.
1815. *Valvata obtusa* : BRARD, *Hist. Coq. Envir. Paris*, p. 190, pl. vi, f. 17.
1817. *Turbo thermalis* : DILLWYN, *Cat. Shells*, ii, p. 852.
1821. *Valvata obtusa*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 98, pl. iv, f. 32.
- 1822, } *Valvata piscinalis* : LAMARCK, *Hist. Anim. s. Vcrt.*, vi,  
Apr. } pt. 2, p. 172.
- 1822, } *Valvata piscinalis* : FLEMING, Suppt. 4-6th ed. *Ency.*  
May. } *Brit.*, v, p. 576.
1826. *Cyclostoma obtusum*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 104.
1827. *Valvata piscinalis*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 62-65.
1831. *Valvata obtusa*, Drap. : TURTON, *Manual*, p. 130, f. 114.
- 1840, } *Valvata piscinalis*, Müller : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 97, pl. x, f. 114.
- Post } *Valvata piscinalis*, Lamarek : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 27, pl. xiv, f. 62-65.
1840. } *Valvata piscinalis*, Lamarek : BROWN, *Illust. L. & F.-W.*  
1845. } *Conch. Brit.*, p. 6, pl. i, f. 14-17 and pl. xxiv,  
f. 18.
1850. *Valvata piscinalis*, Müller : FORBES & HANLEY, *Brit. Moll.*, iii, p. 19, pl. lxxi, f. 9 & 10.
1851. *Valvata Moquiniana*, Reyn. MS. : DUPUY, *Hist. Moll. France*, p. 586, pl. xxviii, f. 15.
1852. *Valvata fontinalis*, Mont. : LEACH, *Moll. Brit. Synop.*, p. 206.
1852. *Valvata alpestris*, Blauner MS. : KUESTER, in Martini & Chemnitz, *Conch. Cab.*, ed. 2, bd. i, abth. 21, *Paludina*, p. 86, pl. xiv, f. 7 & 8.
1856. *Valvata piscinalis*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 340, pl. xli, f. 1-25.
1856. *Valvata Moquiniana*, Reyn. : MOQUIN-TANDON, *t. c.*, p. 343, pl. xli, f. 29-31.
1857. *Valvata piscinalis*, Müller : GRAY, in Turton's *Manual*, new ed., p. 34, pl. x, f. 114.
1862. *Valvata piscinalis*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 72; v, pl. iv, f. 8.
1863. *Valvata piscinalis*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 198, figs.

1864. *Valvata (Cincinna) piscinalis*, Müll.: MÖRCH, *Synop. Moll. Danw.*, p. 59.
1870. *Valvata (Valvatinella) piscinalis*, Müll.: BETTA, *Atti Accad. Agric. Verona*, xlvii, mem., p. 127.
1877. *Valvata (Concinna) piscinalis*, Müller: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 302, f. 162.
1877. *Valvata (Concinna) alpestris*, Blauner: CLESSIN, *o. c.*, p. 303, f. 163.
1884. *Valvata (Cincinna) alpestris*, Blauner: CLESSIN, *o. c.*, ed. 2, p. 456, f. 313.

[GERMAIN (*Moll. France*, ii, p. 320) cites as synonyms:—

*Valvata gallica*, Locard; and *V. meretricis*, Bourg.]

First recorded as British about 1702–11, by J. Petiver (*Gazophil.*, pl. xviii, f. 2).

British Distribution in Time: Pleistocene to Recent.

[The records from earlier strata are incorrect.]

## 2. †*Valvata antiqua*, Morris.

Etym.:—Lat. *antiquus*, ancient.

1838. *Valvata antiqua*: MORRIS, *Mag. Nat. Hist.*, N.S. ii, p. 544, f. 26 (p. 547).

[Although cited by some authors this species does not occur on the Continent.]

First recorded as British in 1838, as above.

British Distribution in Time: Pleistocene.

## 3. †*Valvata andreana*, Menzel.

Etym.:—Named in honour of the German naturalist, A. Andreae.

1904. *Valvata (Cincinna) andreana*, n. sp.: MENZEL, *Nachrbl. Deutsch. Malak. Gesell.*, 1904, p. 77.

First recorded as British in 1917, by A. S. Kennard & B. B. Woodward (*Proc. Geol. Assoc.*, xxviii, table facing p. 190) as *V. andreaxana*.

British Distribution in Time: Cromerian and Pleistocene.

## 4. *Valvata macrostoma* (Steenbuch MS.), Mörch.

Etym.:—Gr. *μακρός*, *orig.* long, *second.* extended in any direction, hence large + *στόμα*, a mouth.

1789. *Valvata pulchella*, n. sp.: STUDER, in Cox's *Trav. in Switzerld.*, iii, p. 391. [*Nom. nud.*]
1820. *Valvata pulchella*, Drap. [*sic*]: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91. (Reprint, "Syst. Verzeichn.," p. 23.) [*Non* Draparnaud. *Nom. nud.*]

1847. *Valvata macrostoma*, Steenbuck [*sic*]: BECK, *Amtl. Ber.*  
24. *Versamml. Deutsch. Naturf.*, p. 123.  
[*Nom. nud.*]
1864. *Valvata macrostoma*, Steenbuch: MÖRCH, *Synop. Moll.*  
*Daniae*, p. 59.
1875. *Valvata (Tropidina) macrostoma*, Steenbuch: SAND-  
BERGER, *Land- & Süssw.-Conch. Vorwelt*,  
p. 775, pl. xxxiii, f. 17 a-c.

First recorded as British in 1910, by A. S. Kennard &  
A. W. Stelfox (*Proc. Malac. Soc. Lond.*, ix, p. 123).  
British Distribution in Time: Cromerian and Recent.

5. †*Valvata naticina*, Menke.

Etym. :—Lat. dimin. of *Natica*, a genus of mollusks.

1845. *Valvata naticina*, m.: MENKE, *Zeitschr. f. Malak.*, ii,  
p. 129.
1863. *Valvata Menckana*: JELSKI, *Journ. de Conchyl.*, xi,  
p. 136, pl. vi, f. 4.
1875. *Valvata (Cincinna) naticina*, Menke: SANDBERGER,  
*Land- & Süssw.-Conch. Vorwelt*, p. 773,  
pl. xxxiii, f. 15 a-d.
1877. *Valvata (Concinna) naticina*, Menke: CLESSIN, *Deutsch.*  
*Excurs. Moll. Fauna*, p. 306, f. 166.
1884. *Valvata (Cincinna) naticina*, Menke: CLESSIN, *o. c.*,  
ed. 2, p. 459, f. 316.

First recorded as British in 1901, by A. S. Kennard  
(*Proc. Malac. Soc. Lond.*, iv, p. 186), as *V. piscinalis*,  
var. *naticina*.

British Distribution in Time: Pleistocene.

6. †*Valvata goldfussiana*, Wüst.

Etym. :—Named in honour of the German malacologist, O.  
Goldfuss.

1880. *Valvata fluviatilis*, Colbeau: SANDBERGER, *Paläontogr.*,  
xxvii (N.F. vii), p. 100, pl. xii, f. 4-4 b.  
[*Non* Colbeau.]
1900. *Valvata (Cincinna) Goldfussiana*, Wüst. nov. form.:  
WUEST, *Abhandl. Naturf. Gesell. Halle*, xxiii,  
1901, p. 236 (Separate, 1900, p. 220), pl. i,  
f. 43-46.
1911. *Valvata woodwardi*, n. sp.: KENNARD, *Proc. Malac. Soc.*  
*Lond.*, ix, p. 324, fig.

First recorded as British in 1880, by C. L. F. von Sand-  
berger as *V. fluviatilis*, Colb. (*See* ref. above.)

British Distribution in Time: Cromerian.

7. *Valvata cristata*, Müller.

Etym. :—Lat. *cristatus*, crested, in allusion to its conspicuous plumed gill.

1774. *Valvata cristata* : MÜLLER, *Verm. Hist.*, ii, p. 198.  
 1791. *Nerita valvata* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3675.  
 1801. *Valvata planorbis* : DRAPARNAUD, *Tabl. Moll. France*, p. 42.  
 1803. *Helix cristata*, Müller : MONTAGU, *Test. Brit.*, p. 460, vign. 1, f. 7 & 8.  
 [According to Montagu (*Test. Brit. Suppt.*, p. 147) this species occurred in the Portland Collection under the name of *Helix cornea minime*.]  
 1805. *Valvata spirorbis* : DRAPARNAUD, *Hist. Moll. France*, p. 41, pl. i, f. 32 & 33.  
 1805. *Valvata planorbis* : DRAPARNAUD, *o. c.*, p. 41, pl. i, f. 34 & 35.  
 1805. *Valvata minuta* : DRAPARNAUD, *o. c.*, p. 42, pl. i, f. 36–38.  
 1806. *Valvearius cristatus*, Müller : FEORIEP, in Duméril's *Analyst Zool.*, p. 165.  
 1807. *Nerita valvata*, L. : G. HARTMANN, *Alpina*, ii, p. 234.  
 1807. *Turbo cristatus* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 169.  
 1817. *Turbo cristatus*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 883.  
 1821. *Valvata branchiata* : GRUITHUISEN, *Nova Acta Acad. Leop.-Carol.*, x, p. 439.  
 1821. *Valvata spirorbis*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 100, pl. iv, f. 34.  
 1821. *Valvata cristata*, Müll. : C. PFEIFFER, *t. c.*, p. 101, pl. iv, f. 35.  
 1823. *Turbo cristatus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.  
 1824. *Helix nana* : MEGERLE VON MÜHLFELD, *Verhandl. Gesell. Naturf. Freunde Berlin*, i, stk. 4, p. 220.  
 1826. *Valvata planorbis*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 101.  
 1827. *Valvata cristata*, BROWN'S MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 66 & 67.  
 1831. *Valvata spirorbis*, Drap. : TURTON, *Manual*, p. 131, f. 115.  
 1831. *Valvata planorbis*, Drap. : TURTON, *o. c.*, p. 132, f. 116.  
 1831. *Valvata minuta*, Drap. : TURTON, *o. c.*, p. 132, f. 117.  
 1833. *Gyrorbis, spirorbis, mihi* : } FITZINGER, *Beitr. Landesk.*  
 1833. *Gyrorbis planorbis, mihi* : } *Oesterr.*, iii, p. 117.  
 1833. *Gyrorbis minutus, mihi* : }  
 1838. *Valvata (Planella) cristata*, m. (Müll.) : SCHLUETER, *Kurz. Verzeichn. Syst.*, p. 13.



- 1840, } *Valvata cristata*, Müller : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 98, pl. x, f. 115-117.  
Post }  
Sept. } *Valvata cristata*, Müller : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 28, pl. xiv, f. 66 & 67.  
1845. *Valvata cristata*, Müller : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 7, pl. i, f. 18 & 19.  
1850. *Valvata cristata*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
iii, p. 21, pl. lxxi, f. 11-13.  
1852. *Valvata Mülleri* : LEACH, *Moll. Brit. Synop.*, p. 205.  
1856. *Valvata cristata*, Müll. : MOQUIN-TANDON, *Hist. Moll.*  
*France*, ii, p. 544, pl. xli, f. 32-42.  
1857. *Valvata cristata*, Müller : GRAY, in Turton's *Manual*,  
new ed., p. 36, pl. x, f. 115-117.  
1862. *Valvata cristata*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 74 ;  
v, pl. iv, f. 9.  
1863. *Valvata cristata*, Müller : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 200, figs.  
1864. *Valvata (Tropidina) minuta*, Drp. : MÖRCH, *Synop. Moll.*  
*Danica*, p. 58.  
1870. *Valvata (Planorbitana) cristata*, Müll. : BETTA, *Atti*  
*Accad. Agric. Vcrona*, xlvii, mem., p. 127.  
1870. *Valvata (Planorbitana) spirorbis*, Drap. : BETTA, *l. c.*  
1877. *Valvata (Gyrorbis) cristata*, Müller : CLESSIN, *Deutsch.*  
*Excurs. Moll. Fauna*, p. 309, f. 169.

[GERMAIN (*Moll. France*, ii, p. 323) cites *Valvata planorbulina*, Paladilhe, as a synonym.]

First recorded as British in 1784, by Boys & Walker  
(*Test. minut. rar.*, p. 5, pl. i, f. 18 & 19).

British Distribution in Time : Pliocene to Recent.

#### Fam. : ASSIMINEIDÆ.

Genus : 1. ASSIMINEA (Leach MS.), Fleming.

Etym. :—Uncertain, but not improbably intended in honour of  
the celebrated oriental scholar Joseph Simon Assemani,  
Leach's handwriting being misread by Fleming and Gray.

Type :—*Assimineca Grayana* (Leach MS.), Fleming.

1821. *Synccera*, subg. of *Nerita* : GRAY, *Lond. Med. Repos.*, xv,  
p. 239.  
1828. *Assimineca* (Leach MS.) : FLEMING, *Hist. Brit. Anim.*,  
p. 275.  
1835. *Assiminia* : GRAY, *Phil. Trans. Roy. Soc.*, cxxv, p. 303.  
1839. *Assaminia* : GRAY, in *Zool. Beechey's Voy.*, p. 141.  
1851. *Synccera*, Gray : S. P. WOODWARD, *Manual Moll.*, p. 137.  
1900. *Assemanina* : KNIGHT, *Journ. of Conch.*, ix, p. 276.



1. *Assiminea grayana* (Leach MS.), Fleming.

Etym. :—Named in honour of Dr. J. E. Gray.

1821. *Nerita (Syncera) Hepatica* : GRAY, *Lond. Med. Repos.*, xv, p. 239. [*Nom. nud.*]
1828. *Assiminea Grayana* (Leach MS.) : FLEMING, *Hist. Brit. Anim.*, p. 275.
1830. *Limneus Grayanus*, Leach : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 378.
1835. *Assiminia Grayana* : GRAY, *Phil. Trans. Roy. Soc.*, cxxv, p. 303.
1838. *Paludina Grayana*, nobis : POTIEZ & MICHAUD, *Gall. Moll.*, i, p. 251, pl. xxv, f. 23 & 24.
1839. *Assaminia Grayana*, Flem. : GRAY, in *Zool. Beechey's Voy.*, p. 141.
1840. } *Assiminia Grayana*, Leach MS. : GRAY, in *Turton's*  
Apr. } *Manual*, new ed., p. 86, pl. xi, f. 127.
- Post }  
Sept. } *Assiminia Grayana*, Leach MSS. : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 27, pl. xviii, f. 3 & 4.
1840. }  
1845. } *Assiminia Grayana*, Leach MSS. : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 6, pl. i, f. 12 & 13; and pl. xxiv, f. 17.
1850. *Assiminia grayana*, Jeffreys : FORBES & HANLEY, *Brit. Moll.*, iii, p. 70, pl. lxxi, f. 3 & 4, and pl. HH, f. 6.
1851. *Syncera hepatica* : S. P. WOODWARD, *Manual Moll.*, p. 137.
1852. *Assiminia Grayana* : LEACH, *Moll. Brit. Synop.*, p. 155, pl. ix, f. 4 & 5.
1855. *Truncatella Grayana*, Nobis : CLARK, *Ann. & Mag. Nat. Hist.*, Ser II, vol. xvi, p. 115.
1857. *Assiminia Grayana*, Leach MS. : GRAY, in *Turton's Manual*, new ed., p. 22, pl. xi, f. 127.
1863. *Assiminia Grayana*, Leach : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 183, figs.
1869. *Assiminea Grayana*, Leach : JEFFREYS, *Brit. Conch.*, v, p. 99.
1903. *Assemania grayana*, Leach : B. B. WOODWARD, *Journ. of Conch.*, x, p. 356.

First recorded as British in 1821, by J. E. Gray, as *Nerita Syncera hepatica*. (See ref. above.)

British Distribution in Time : Holocene and Recent.

Fam. : TIARIDÆ (olim MELANIIDÆ .

Genus : 1. PALADILHIA, Bourguignat.

Etym. :—Named in honour of the French malacologist, A. Paladilhe.

Type :—*Paladilhia pleurotoma*, Bourguignat.

1865. *Paladilhia* : BOURGUIGNAT, *Monog. n. gen. Franc.*  
“*Paladilhia*,” p. 5 (diagn. p. 15).

1869. *Latetia* : BOURGUIGNAT, *Cat. Moll. envir. Paris*, p. 17.

1874. *Micromelania* : BRUSINA, *Foss. Binnen-Moll. Dalmaticen*,  
p. 133.

1874. *Goniochilus* : SANDBERGER, *Land- & Süßw.-Conch.*  
*Vorwelt*, p. 689, pl. xxxi, f. 16.

1. †*Paladilhia radigueli* (Bourguignat).

Etym. :—Named in honour of a M. Radiguel.

(Formerly mistaken for a variety of *Paludestrina ventrosa*.)

1869. *Lartetia Radigueli* : BOURGUIGNAT, *Cat. Moll. envir.*  
*Paris*, p. 16, pl. ii, f. 44–46.

1912. *Paladilhia Radigueli* : DOLLFUS, *Journ. de Conchyl.*,  
lix, p. 200.

First recorded as British by J. Pickering in 1855 as a  
“*Paludina* or *Rissoa* very like the one found at  
Grays” (*Quart. Journ. Geol. Soc.*, xi, p. 110).

British Distribution in Time : Pleistocene.

2. †*Paladilhia deani* (Kendall).

Etym. :—Named in honour of Mr. J. Davy Dean, of the  
National Museum of Wales, Cardiff.

1913. *Paludestrina deani*, sp. nov. : KENDALL, *Journ. of Conch.*,  
xiv, p. 90, figs.

1923. *Paladilhia deani* (Kendall) : KENNARD & WOODWARD,  
*Quart. Journ. Geol. Soc.*, lxxix, p. 630, in  
table.

First recorded as British in 1913. (See ref. above.)

British Distribution in Time : Pleistocene.

(Sub-class : **Euthyneura.**)

Order : *PULMONATA.*

(Sub-order : *BASOMMATOPHORA.*)

Fam. : **ELLOBIIDÆ.**<sup>1</sup>

Genus : **1. CARYCHIUM**, Müller.

Etym. :—Gr. *κάρυξ*, Doric for *κῆρυξ*, a herald; because in ancient times they used a shell as a trumpet.

Monotype :—*C. minimum*, Müller.

1774. *Carychium* : MÜLLER, *Verm. Hist.*, ii, p. 125.

1807. *Carichium* [pars] : FÉRUSAC, *Essai méthod. Conch.*, p. 36 (table).

1821. *Auricella* [pars] : HARTMANN, *Neue Alpina*, i, p. 215. [*Non* Jurine 1817.]

1826. *Saraphia* : RISSO, *Hist. Nat. Europ. Mérid.*, iv, p. 83.

1856. *Auriculina*, subg. of *Carychium* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 646. [Proposed in lieu of *Auricella* on p. 413.]

1. †**Carychium ovatum**, Sandberger.

Etym. :—Lat. *ovatus*, egg-shaped.

1880. *Carychium ovatum*, Sandb. : SANDBERGER, *Palaeontog.*, xxvii (N.F. vii), p. 102, pl. xii, f. 12–12 b.

First recorded as British in 1880 as above.

British Distribution in Time : Cromerian.

2. **Carychium minimum**, Müller.

Etym. :—Lat. *minimus*, smallest.

1774. *Carychium minimum* : MÜLLER, *Verm. Hist.*, ii, p. 125.

1791. *Helix carychium* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3665.

1801. *Auricula minima* : DRAPARNAUD, *Tabl. Moll. France*, p. 54.

1803. *Turbo carychium*, Müller : MONTAGU, *Test. Brit.*, p. 339.

1805. *Auricula minima* : DRAPARNAUD, *Hist. Moll. France*, p. 57, pl. iii, f. 18 & 19.

1807. *Carichium minimum*, Müll. : FÉRUSAC, *Essai méthod. Conch.*, p. 54.

<sup>1</sup> For discussion on the generic names, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiii, 1919, p. 136.

1807. *Uclix carychium*, L. [Gmel.]: G. HARTMANN, *Alpina*, ii, p. 233.
1807. *Turbo carychium*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 184.
1813. *Turbo carychium*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 52, pl. xix, f. 13.
- 1813? *Odostomia carychium*: FLEMING, *Edinb. Ency.*, vii, p. 76.
1817. *Turbo carychium*, Mont.: DILLWYN, *Cat. Shells*, ii, p. 880.
1818. *Auricula carychium*, mihi: KLEES, *Dissert. Test. Tubingen*, p. 30.
1819. *Carychium minimum*, Müll.: LEACH, *Moll. Brit. Synop.* (proofs), p. 133.
1821. *Auricella carychium*: HARTMANN, *Neue Alpina*, i, p. 215.
1821. *Carychium minimum*, Müll.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 69, pl. iii, f. 40 & 41.
1823. *Auricella carychium*, Jurine: HARTMANN, in Sturm, *Deutschl. Fauna*, vi, hft. 6 [p. 1]. [Non Jurine.]
1823. *Turbo carychium*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Saraphia tridentata* (N): RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 84.
1827. *Carychium minimum*, Pfeiffer: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 10.
1830. *Carychium minimum*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 365.
1831. *Carychium minimum*, Drap.: TURTON, *Manual*, p. 96, f. 77.
1836. *Carychium pygmaeum*, Mich.: HOLLANDRE, *Faune Dépt. Moselle*, p. 38. [Non Michaud.]
1837. *Carychium minutissimum*, Fér.: BECK, *Index Moll.*, p. 103 in synonym. [Non Férussac.]
1839. *Auricula (Carychium) nanum*, Küster: ANTON, *Verzeichn. Conch.*, p. 48.
1840. } *Carychium minimum*, Mont.: GRAY, *Turton's Manual*,  
Apr. } new ed., p. 221, pl. vii, f. 77.
- Post }  
Sept. } *Carychium minimum*, Müller: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 34, pl. xiv, f. 10; xviii, f. 15.
1841. *Carychium nanum*, mihi: KÜSTER, *Syst. Conch. Cab.*, Auriculacea, p. 5, pl. i, f. 10 [as var. of *minimum*.]
1841. *Carychium elongatum*, Villa: A. & J. B. VILLA, *Disp. Syst. Conch.*, p. 59.
1845. *Carychium minimum*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 28, pl. iv, f. 8 & 9 [\* on pl.].
1852. } *Carychium minimum*, Müll.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 95.

- 1852, July. } *Carychium minimum*, Müller : FORBES & HANLEY, *Brit. Moll.*, iv, p. 198, pl. cxxv, f. 6.
1856. *Carychium (Auricella) minimum*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 413, pl. xxix, f. 15-26. [Altered on p. 646 to *Auriculina*.]
1857. *Carychium minimum*, Müller : GRAY, *Turton's Manual*, new ed., p. 190, f. 45, pl. vii, f. 77.
1862. *Carychium minimum*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 300; v, pl. xviii, f. 4.
1863. *Carychium minimum*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 127, figs.

[GERMAIN (*Moll. France*, ii, p. 266) cites *C. Rayi*, Bourg.; and *C. sianicum*, Caziot, as synonyms.]

First recorded as British in 1784, by Boys & Walker (*Test. minut. rar.*, p. 14, pl. ii, f. 51).

British Distribution in Time : Pleistocene to Recent.

[The records from earlier strata are incorrect.]

## Genus : 2. PHYTIA, Gray.

Etym. :—Probably an anagram of *Pythia*, although Agassiz derives it from *φύτιος* (procreans) : there is no evidence as assumed by Beck and subsequent authors that it was a misspelling.

Type :—*Voluta denticulata*, Montagu.

(*Voluta*, *Auricula*, *Carychium*, *Turbo*, vett. auctt.)

1807. *Carichium* [pars] : FÉRUSSAC, *Essai méthod. Conch.*, p. 54.
1817. *Auricella* [pars] : JURINE, *Helv. Alman.*, p. 34.
1819. *Alexia* : LEACH, *Moll. Brit. Synop.* (proofs), p. 135.
1821. *Phytia* : GRAY, *Lond. Med. Repos.*, xv, p. 231. [Cited as a good name in synonymy by H. & A. Adams and Jeffreys.]
1827. *Jaminia* [pars] Bruguière : BROWN, *Illust. Conch. Brit.*, ed. 1, p. iv. [Non Risso, 1826. The name was not used by Bruguière.]
1839. *Phitia*, Gray [pars] : SOWERBY, *Conch. Manual*, p. 81.
1840. *Ovatella*, Bivona : GRAY, *Turton's Manual*, new ed., p. 225. [Non Bivona.]
1847. *Alexia*, Leach MSS. : GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 179. [Non Stephens, 1835 (Coleopt.).]
1900. *Kochia*, sect. of *Alexia* : PALLARY, *Journ. de Couchyl.*, xlvi, p. 239. [Non Frech, 1891.]
1906. *Myosotella* : MONTEROSATO, *Nat. Sicil.*, xviii, p. 126. [Founded for *Auricula myosotis*, Drap., its synonym, *A. denticulata*, being left under *Alexia*.]
1920. *Ncalxia* : WENZ, *Senckenbergiana*, ii, p. 190.

1. *Phytia myosotis* (Draparnaud).

Etym. :—Gr. *μῦς*, a mouse + *οἶς* (gen. *ὠρός*), an ear.

1801. *Auricula myosotis* : DRAPARNAUD, *Tabl. Moll. France*, p. 53.
1803. *Voluta denticulata* : MONTAGU, *Test. Brit.*, p. 234; Suppt., pl. xx, f. 5.
1805. *Auricula myosotis* : DRAPARNAUD, *Hist. Moll. France*, p. 56, pl. iii, f. 16 & 17.
1807. *Carychium myosotis*, Drap. : FÉRUSAC, *Essai méthod. Conch.*, p. 54.
1807. *Voluta denticulata*, Walker : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 130.
1813. *Voluta denticulata* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 44, pl. xviii, f. 1.
1817. *Auricella myosotis* : JURINE, *Helv. Alman.*, p. 34.
1817. *Carychium myosotis* : BLAINVILLE, *Dict. Sci. Nat.*, vii, p. 188.
1817. *Voluta denticulata*, Mont. : DILLWYN, *Cat. Shells*, i, p. 506.
1819. *Voluta ringens* : TURTON, *Conch. Dict.*, p. 250. [*Fide Gray.*]
1819. *Voluta reflexa* : TURTON, *o. c.*, p. 251. [*Fide Gray.*]
1819. *Alexia denticulata*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs), p. 135.
- 1821, )  
Mar. ) *Phytia denticulata* : GRAY, *Lond. Med. Repos.*, xv, p. 231.
1821. *Auricella myosotis*, Drap. : HARTMANN, *Neue Alpina*, i, p. 215.
1823. *Turbo denticulatus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 455.
1826. *Auricula myosotis*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 93.
1827. *Jaminia denticulata* (Mont.) : BROWN, *Illust. Conch. Brit.*, ed. 1, p. iv, pl. li, f. 6.
1827. *Jaminia quinquidens*, n. sp. : BROWN, *o. c.*, p. iv, pl. li, f. 11.
1828. *Acteon denticulatus* : FLEMING, *Hist. Brit. Anim.*, p. 337.
1830. *Auricula denticulata*, Mont. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 367.
1830. *Auricula tenella*, m. : MENKE, *Synop. Moll.*, ed. 2, p. 131.
1831. *Carychium myosote*, Drap. : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 73.
1831. *Carychium personatum*, nobis : MICHAUD, *o. c.*, p. 73, pl. xv, f. 42 & 43.
1833. *Auricula multivolvis*, Jeffreys : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 518.
1837. *Pythia denticulata* (Mtg.), Gray : BECK, *Index, Moll.* p. 103.

1837. *Pythia myosotis* (Drp.), B. : BECK, *o. c.*, p. 104.
1838. *Auricula personata*, Mich. : POTIEZ & MICHAUD, *Gal. Moll. Douai*, i, p. 205.
1840. } *Conovulus (Ovatella) denticulatus*, Mont. : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 255, pl. xii, f. 144.
- Post }  
Sept. } *Jaminia denticulata*, Montagu : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 22, pl. viii, f. 6.
- Post }  
Sept. } *Jaminia quinquedens*, Brown : BROWN, *o. c.*, p. 22, pl. viii,  
1840. } f. 11.
1842. *Conovulus myosotis*, Drap. : WOOD, *Ann. & Mag. Nat. Hist.*, ix, p. 462.
1847. *Alexia denticulata* : GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 179.
1852. } *Alexia denticulata*, Mont. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 97.
1852. } *Conovulus denticulatus*, Montagu, and var. *myosotis* :  
July. } FORBES & HANLEY, *Brit. Moll.*, iv, p. 194,  
pl. cxxv, f. 3-5.
1856. *Carychium (Ovatella) denticulatum*, Mont. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 415, pl. xxix, f. 27-29.
1857. *Conovulus (Ovatella) denticulatus*, Mont. : GRAY, Turton's *Manual*, new ed., p. 192, f. 46, pl. xii, f. 144.
1863. *Conovulus denticulatus*, Montagu : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 129, figs.
1863. *Conovulus myosotis*, Draparnaud : REEVE, *o. c.*, p. 130, figs.
1869. *Melampus myosotis*, Drap. : JEFFREYS, *Brit. Conch.*, v, p. 106, pl. xcvi, f. 2.
1878. *Alexia myosotis*, Drap. : NEVILL : *Hand List Moll. Indian Mus.*, i, p. 227.
1900. *Alexia (Kochia) denticulata*, Montagu : PALLARY, *Journ. de Conchyl.*, xlviii, p. 239.
1902. *Alexia (s.s.) denticulata*, Mont. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 117.
1902. *Alexia (Phytia) myosotis*, Drp. : WESTERLUND, *t. c.*, p. 117.
1904. *Phytia myosotis*, Drap. : KOBELT in Rossmüssler, *Icon.*, N.F. xi, p. 237.
1906. *Myosotella myosotis*, Drap. : MONTEROSATO, *Nat. Sicil.*, xviii, p. 126.

[GERMAIN (*Moll. France*, ii, p. 267) cites as synonyms :—  
*Alexia Hiriarti*, Folin & Bérillon; *A. biassoletina*,  
Küster; and *A. parva*, Locard.]

First recorded as British in 1784, by Boys & Walker  
(*Test. minut. var.*, p. 14, pl. ii, f. 50 & 53).

British Distribution in Time : Pleistocene to Recent.



## Genus : 3. LEUCONIA, Gray.

Etym. :—Gr. λευκός, white.

Type :—*Voluta bidentata*, Montagu.

(*Voluta*, *Auricula*, vett. auctt.)

1819. *Iaminia* : LEACH, *Moll. Brit. Synop.* (proofs), p. 134.  
 1827. *Jaminia*, Bruguière [pars] : BROWN, *Illust. Conch. Brit.*,  
 ed. 1, p. iv, [Non Risso, 1826. The name  
 was not used by Bruguière.]  
 1840. *Leuconia*, sect. of *Conovulus* : GRAY, *Turton's Manual*,  
 new ed., p. 227.  
 1847. *Jaminea* [sic], Leach MSS. : GRAY, *Proc. Zool. Soc. Lond.*,  
 xv, p. 179.

1. *Leuconia bidentata* (Montagu).

Etym. :—Lat. *bidentatus*, having two teeth.

1808. *Voluta bidentata* : MONTAGU, *Test. Brit.*, Suppt., p. 100,  
 pl. xxx, f. 2.  
 1817. *Voluta bidentata*, Mont. : DILLWYN, *Cat. Shells*, i, p. 507.  
 1819. *Voluta alba* : TURTON, *Conch. Dict.*, p. 250. [*Fide* Gray.  
 Non Montagu.]  
 1819. *Iaminia bidentata*, Mont. : LEACH, *Moll. Brit. Synop.*  
 (proofs), p. 134.  
 1821. *Auricula bidentata*, MONTAGU : FÉRUSSAC, *Tabl. syst.*  
*Limaçons*, Jan. ed., p. 107 (June ed., p. 103).  
 1827. *Jaminia bidentata*, Mont. : BROWN, *Illust. Conch. Brit.*,  
 ed. 1, p. iv, pl. li, f. 7.  
 1828. *Volvaria alba* [pars] : FLEMING, *Brit. Anim.*, p. 333.  
 1828. *Acteon bidentatus* : FLEMING, *o. c.*, p. 337.  
 1830. *Auricula bidentata*, Mont. : JEFFREYS, *Trans. Linn. Soc.*,  
 xvi, p. 368.  
 1830. *Auricula erosa* : JEFFREYS, *o. c.*, p. 369.  
 1830. *Auricula alba* : JEFFREYS, *o. c.*, p. 369.  
 1835. *Auricula dubia*, nobis : CANTRAINE, *Bull. Acad. Sci.*  
*Bruzelles*, ii, p. 383.  
 1840, } *Conovulus (Leuconia) bidentatus*, Mont. : GRAY, *Turton's*  
 Apr. } *Manual*, new ed., p. 227, pl. xii, f. 145.  
 1840, } *Conovulus (Leuconia) albus*, Mont. : GRAY, *o. c.*, p. 227,  
 Apr. } pl. xii, f. 146.  
 Post } *Jaminia bidentata*, Montagu : BROWN, *Illust. Conch.*  
 Sept. } *Brit.*, ed. 2, p. 22, pl. viii, f. 7.  
 1840. }  
 1841. *Auricula Micheli* : MITTRE, *Rev. Zool.*, 1841, p. 66.  
 1847. *Leuconia (Jaminea) bidentata* : GRAY, *Proc. Zool. Soc.*  
*Lond.*, xv, p. 179.  
 1852, } *Iaminia bidentata*, Mont. : LEACH, *Moll. Brit. Synop.*  
 Feb. } p. 97.



- 1852, } *Conovulus bidentatus*, Montagu : FORBES & HANLEY,  
 July. } *Brit. Moll.*, iv, p. 191, pl. cxxv, f. 1 & 2.  
 1855. *Leuconia bidentata*, Mont. : H. & A. ADAMS, *Genera Moll.*,  
 ii, p. 248.  
 1856. *Carychium (Phytia) myosotis*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 417, pl. xxix, f. 33-  
 39; xxx, f. 1-4.  
 1857. *Conovulus (Leuconia) bidentatus*, Mont. : GRAY, Turton's  
*Manual*, new ed., p. 195, pl. xii, f. 145 & 146.  
 1863. *Conovulus bidentatus*, Montagu : REEVE, *L. & F.-W.*  
*Moll. Brit. Is.*, p. 131, figs.  
 1869. *Melampus bidentatus*, Montagu : JEFFREYS, *Brit. Conch.*,  
 v, p. 104, pl. xcvi, f. 1.  
 1903. *Ovatella bidentata (Mont.)* : B. B. WOODWARD, *Journ. of*  
*Conch.*, x, p. 355.

First recorded as British in 1808, by G. Montagu, as  
*Voluta bidentata*. (See ref. above.)

British Distribution in Time : Pliocene and Recent.

Fam. : LIMNÆIDÆ.

Genus : 1. LIMNÆA, Lamarck (em.).

[*Non Limnæa* of Poli, a non-binomial author.]

Etym. :—Gr. *λίμνη*, a pool of standing water.

Genotype :—*Helix stagnalis*, Linné. (Selected by Fleming,  
 1818.)

(*Helix*, *Buccinum*, *Turbo*, *Bulimus*, vett. auctt.)

1799. *Lymnæa* & *Lymnæa* : { LAMARCK, *Mém. Soc. Hist. Nat. Paris*, i,  
 p. 75. [The "œ" was a typographical  
 error and occurs in several other words in  
 the early part of the paper. This was  
 rectified in the latter portion of the paper  
 and the concluding "Table."]  
 1801. *Limnæus* : DRAPARNAUD, *Tabl. Moll. France*, p. 47.  
 1807. *Lymnæa* : LINK, *Beschreib. Nat. Samml. Univ. Rostock*,  
 p. 138. [*Non* Rafinesque, 1815 (Pisces).]  
 1810. *Lymnus* : MONTFORT, *Conch. Syst.*, ii, p. 262.  
 1812. *Lymnæus* : FÉRUSAC, *Ann. Mus. Hist. Nat. Paris*, xix,  
 p. 252.  
 1817. *Lymnæus* : CUVIER, *Réque Anim.*, ii, p. 412.  
 1819. *Lymnula* : RAFINESQUE, *Journ. Phys. Paris*, lxxxviii,  
 p. 423.  
 1821. *Limnæus* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i,  
 pp. 14 & 84.  
 1823. *Limnæa* : BLAINVILLE, *Dict. Sci. Nat.*, xxvi, p. 449.  
 1828. *Limnæa* : FLEMING, *Brit. Anim.*, p. 273.

1831. *Lymnæus* : MICHELIN, *Mag. Zool.*, i, Moll., p. 22 & pl.  
 1833. *Limnophysa* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii,  
 p. 112.  
 1833. *Limnæus* : FITZINGER, *l. c.*, p. 113.  
 1872. *Limnæus* : SHUTTLEWORTH, *Enum. Plantes & Moll. terr.*  
*Corse*, p. 28.  
 1889. *Limnæa* : GOURDON, *Cat. Moll. Vall. de la Pique*, p. 70.  
 1913. *Lymnoëa* : SUTER, *Manual New Zealand Moll.*, p. 604.

Sub-gen. **Limnæa**, s.s.

1799. *Lymnæa* : LAMARCK, *Mém. Soc. Hist. Nat. Paris*,  
 i, p. 75.  
 1810. *Lymnæus* : MONTFORT, *Conch. Syst.*, ii, p. 262.  
 1819. *Stagnicola* [pars] : LEACH, *Moll. Brit. Synop.*  
 (proofs), p. 140.  
 1831. *Stagnicola* [pars] : LEACH, in Turton's *Manual*,  
 p. 121, in synon. [*Non* Brehm, 1830  
 (Aves).]  
 1833. *Leachia*, RISSO : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
 p. 520. [*Non* RISSO.]  
 1875. *Eulimnæus* : SANDBERGER, *Land- & Süßw.-Conch.*  
*Vorwelt*, p. 787.  
 1881. *Stagnaliana* : SERVAIN, *Hist. Malac. Lac Balaton*,  
 p. 44.  
 1903. *Limnæus* : DYBOWSKI, *Bull. Acad. imp. Sic. St.*  
*Petersb.*, xviii, p. 113.

Sub-gen. **Galba**, Schrank.

Etym. :—Lat. *galba*, a fat paunch.

Type :—*G. pusilla*, Schrank = *Buccinum truncatulum*, Müller,  
*Teste* Fitzinger.

1803. *Galba* : SCHRANK, *Fauna Boica*, iii, pt. 2, pp. 262  
 & 285.  
 1819. *Stagnicola* [pars] : LEACH, *Moll. Brit. Synop.*  
 (proofs), p. 140.  
 1830, } *Stagnicola* : LEACH, in Jeffreys, *Trans. Linn. Soc.*,  
 May. } xvi, p. 376. [*Non* Brehm, Dec. 1830  
 (Aves).]  
 1833. *Limnophysa* : FITZINGER, *Beitr. Landesk. Oesterr.*,  
 iii, p. 112.  
 1880. *Entochilæus* : SANDBERGER, *Palacontographica*, xxvii  
 (N.F. vii), p. 101.  
 1881. *Corvusiana* : SERVAIN, *Hist. Malac. Lac Balaton*,  
 p. 59.  
 1881. *Palustrisiana* : SERVAIN, *o. c.*, p. 61.  
 1881. *Truncatuliana* : SERVAIN, *o. c.*, p. 63.  
 1885. *Fossaria* : WESTERLUND, *Fauna Palæarct. Region*,  
 v, p. 24.

Sub-gen. **Leptolimnea**, Swainson.

Etym. :—Gr. λεπτός, slender + Limnæa.

Type :—*Limnea elongata*, Sow. = *Buccinum glabrum*, Müller.

1819. *Stagnicola* [pars]: LEACH, *Moll. Brit. Synop.* (proofs), p. 140.  
 1831. *Stagnicola* [pars]: LEACH, in Turton's *Manual*, p. 122, in synonym. [*Non* Brehm, 1830 (Aves).]  
 1838. *Omphiscola*, Rafq.: BECK, *Index Moll.*, p. 110. [*Non* Rafinesque, 1819].  
 1840. *Leptolimnea*: SWAINSON, *Treat. Malac.*, p. 338.  
 1875. *Leptolimneus*: SANDBERGER, *Land- & Süßw.-Conch. Vorwelt*, p. 787.  
 1881. *Glabriana*: SERVAIN, *Hist. Malac. Lac Balaton*, p. 63.

Sub-gen. **Radix**, Montfort.Etym. :—Lat. *radix*, a root.Type :—*Helix auricularia*, Linné.

1810. *Radix*: MONTFORT, *Conch. Syst.*, ii, p. 266.  
 1827. *Lutea* [pars]: BROWN, *Illust. Conch. Brit.*, ed. 1, expl. pl. xlvi.  
 1831. *Gulnaria*: LEACH, in Turton's *Manual*, p. 117, in synonym.  
 1855. *Neritostoma*, Klein: H. & A. ADAMS, *Genera Moll.*, ii, p. 253. [Klein was a pre-Linnean writer.]  
 1881. *Auriculariana*: SERVAIN, *Hist. Malac. Lac Balaton*, p. 49.  
 1881. *Limosiana*: SERVAIN, *o. c.*, p. 52.  
 1881. *Peregriana*: SERVAIN, *o. c.*, p. 56.

Sub-gen. **Cyclolimnæa**, Dall.

Etym. :—Gr. κύκλος, circle + Limnæa.

Type :—*Limnæa involuta*, Harvey.

1905. *Cyclolimnæa*: DALL, *Harriman Alaska Exped.*, xiii, p. 64.

1. **Limnæa** (s.s.) **stagnalis** (Linné).Etym. :—Lat. *stagnum*, pool of stagnant water.

1758. *Helix stagnalis*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 774, no. 612.  
 1758. *Helix fragilis*: LINNÆUS, *o. c.*, no. 613.  
 1767. *Helix stagnalis*: LINNÆUS, *o. c.*, ed. 12, p. 1249, no. 703.  
 1767. *Helix fragilis*: LINNÆUS, *o. c.*, no. 704.

1767. *Buccinum stagnalis*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 72.
1774. *Buccinum stagnale* : MÜLLER, *Verm. Hist.*, ii, p. 132.
1777. *Helix stagnalis*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, 8vo. p. 138; 4to. p. 120, pl. lxxxvi, f. 136.
1778. *Turbo stagnalis* : DACOSTA, *Test. Brit.*, p. 93, pl. v, f. 11.
1789. *Buccinum fragile*, n. sp. : STUDER, in Coxe, *Trav. in Switzerld.*, iii, p. 389.
1789. *Bulimus stagnalis*, nob. : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 303.
1791. *Helix stagnalis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3657, no. 128.
1791. *Helix fragilis* : GMELIN, *t. c.*, p. 3658, no. 129.
1799. } *Lymnæa & Lymnæa stagnalis*, Lin. : LAMARCK, *Mém. May. J*  
*Soc. Hist. Nat. Paris*, i, p. 75.
1799. *Helix stagnalis* : PULTENEY, *Cat. Dorset*, p. 48.
1799. *Helix fragilis* : PULTENEY, *t. c.*, p. 48.
1801. *Limneus stagnalis* : DRAPARNAUD, *Tabl. Moll. France*, p. 49.
1803. *Buccinum stagnale*, Müller : WOLF, in Sturm's *Deutschl. Fauna*, vi, hft. 1.
1803. *Buccinum roseo-labiatum*, mili : WOLF, *l. c.*
1803. *Helix stagnalis*, Lin. : MONTAGU, *Test. Brit.*, p. 367, pl. xvi, f. 8.
1803. *Helix fragilis*, Lin. : MONTAGU, *o. c.*, p. 369, pl. xvi, f. 7.
1803. *Buccinum atrum* : SCHRANK, *Fauna Boica*, p. 288.
1805. *Limneus stagnalis*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 51, pl. ii, f. 38 & 39.
1807. *Helix stagnalis*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 214.
1807. *Helix fragilis*, Linn. : MATON & RACKETT, *t. c.*, p. 215.
1810. *Lymnus stagnalis* : MONTFORT, *Conch. Syst.*, ii, p. 263, fig. p. 262.
1813. *Helix stagnalis* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xxi, f. 11.
- 1813? *Lymnæa stagnalis* : FLEMING, *Edinb. Ency.*, vii, p. 77.
- 1813? *Lymnæa fragilis* : FLEMING, *l. c.*
1816. *Lymnæa jugularis* : SAY, art. "Conchology," Nicholson's *Brit. Ency.*, [Amer. ed.], iv [no pagination] : [See reprint of ed. 3 in "Complete Writings," ed. by Binney, 1858, p. 46.]
1817. *Helix stagnalis*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 962.
1817. *Helix fragilis*, Linn. : DILLWYN, *t. c.*, p. 963.
1818. *Lymnæa stagnalis* : FLEMING, Suppt. 4-6th ed. *Ency. Brit.*, iii, p. 312.
1819. *Stagnicola elegans* : LEACH, *Moll. Brit. Synop.* (proofs), p. 144.
1819. *Stagnicola vulgaris* : LEACH, *o. c.*, p. 145.

1820. *Limneus locustris*, mihi: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 92. (Reprint, "Syst. Verzeichn.," p. 27.)
1821. *Limnæus stagnalis*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 86, pl. iv, f. 19.
1821. *Lymneus appressus*: SAY, *Journ. Acad. Nat. Sci. Philad.*, ii, p. 168.
1822. *Bulinus fragilis*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 123.
1823. *Helix stagnalis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1823. *Helix fragilis*: [BROWN], *l. c.*
1827. *Limnæa stagnalis*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xlii, f. 19-21 & 33.
1827. *Limnæa fragilis*, BROWN'S MS.: BROWN, *o. c.*, pl. xlii, f. 22 & 23.
1830. *Limneus major*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 375.
1831. *Limneus stagnalis*, Drap.: TURTON, *Manual*, p. 121, f. 104.
1831. *Limneus fragilis*, Lam.: TURTON, *o. c.*, p. 121, f. 105.
1831. *Stagnicola vulgaris*: LEACH, in Turton's *Manual*, p. 121, in synon.
1831. *Stagnicola elegans*: LEACH, *o. c.*, p. 122, in synon.
- 1840, } *Limnæus (Radix) stagnalis*, Linn.: GRAY, in Turton's  
Apr. } *Manual*, new ed., p. 237, pl. ix, f. 104.
- Post }  
Sept. } *Lymnæa stagnalis*, Lamarck: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 28, pl. xv, f. 19-23 & 33.
1845. *Lymnæa stagnalis*, Lamarck: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 8, pl. i, f. 21-25; ii, f. 9; xxiv, f. 44.
1847. *Limnæa (Stagnicola) stagnalis*, Lam.: BECK, *Amtl. Ber. 24. Versamml. Deutsch. Naturf.*, p. 123.
1852. } *Stagnicola elegans*: LEACH, *Moll. Brit. Synop.*, p. 104.  
Feb. }
1852. } *Stagnicola vulgaris*: LEACH, *o. c.*, p. 105.  
Feb. }
- 1852, } *Limnæus stagnalis*, Linnæus: FORBES & HANLEY, *Brit.*  
July. } *Moll.*, iv, p. 174, pl. cxxiv, f. 4 & 5.
1856. *Limnæa (Lymnus) stagnalis*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 471, pl. xxxiv, f. 17-20.
1857. *Limnæus (Radix) stagnalis*, Linn.: GRAY, in Turton's *Manual*, new ed., p. 206, pl. ix, f. 104.
1862. *Limnæa stagnalis*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 111; v, pl. vii, f. 5.
1862. *Limnæa borealis*: BOURGUIGNAT, *Rev. & Mag. Zool.*, 1862, p. 96.
1862. *Limnæa clophila*: BOURGUIGNAT, *t. c.*, p. 97.

1862. *Limnæa raphidia* : BOURGUIGNAT, *t. c.*, p. 98.  
 1862. *Limnæa colpodia* : BOURGUIGNAT, *t. c.*, p. 99.  
 1862. *Limnæa doriana* : BOURGUIGNAT, *t. c.*, p. 100.  
 1863. *Limnæa stagnalis*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 160, figs.  
 1875. *Limneus (Eulimneus) stagnalis*, L. : SANDBERGER, *Land- & Süßw.-Conch. Vorwelt*, p. 787.  
 1881. *Limnæa (Stagnaliana) fragilis*, Fleming : SERVAIN, *Hist. Malac. Lac Balaton*, p. 44.  
 1881. *Limnæa (Stagnaliana) stagnalis*, Lamareck : SERVAIN, *o. c.*, p. 44.  
 1903. *Limnæa (Limnus) lagorii*, m. : DYBOWSKI, *Bull. Acad. imp. Sci. St. Petersb.*, xviii, p. 113, figs.

[GERMAIN (*Moll. France*, ii, pp. 232-3) cites as synonyms of the type, or of forms here considered identical, the following:—*Limnæa bodamica*, Clessin; *L. helvetica*, Servain; *L. effusa*, Küster; *L. Locardi*, Coutagne; *L. Westerlundi*, Locard; *L. variegata*, Hazay; *L. turgida*, Menke; *L. helophila*, Bourg.; *L. Coutagni*, Locard; *L. psilia*, Bourg.; *L. debilis*, Bourg.; *L. Moitessieri*, Bourg.; *L. Thommasellii*, Menegazzi; *L. arenaria*, Colbeau; to which may probably be added from Locard:—*L. vagoritana*, Bourg.]

First recorded as British in 1671, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 22).

British Distribution in Time : Cromerian to Recent.

## 2. *Limnæa (Radix) auricularia* (Linné).

Etym. :—Lat. *auricula*, an ear.

1758. *Helix auricularia* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 774, no. 617.  
 1767. *Helix auricularia* : LINNÆUS, *o. c.*, ed. 12, p. 1250, no. 708.  
 1767. *Buccinum auricularia*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 78.  
 1774. *Buccinum auricularia* : MÜLLER, *Verm. Hist.*, ii, p. 126.  
 1777. *Helix auricularia*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, 8vo, p. 139; 4to, p. 121, pl. lxxxvi, f. 138.  
 1778. *Turbo patulus* [pars] : DACOSTA, *Test. Brit.*, p. 95.  
 1789. *Bulimus auricularius*, nobis : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 304.  
 1791. *Helix auricularia* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3662, no. 147.  
 1799. *Helix auricularia* : PULTENEY, *Cat. Dorsct.*, p. 49.  
 1801. *Limneus auricularius* : DRAPARNAUD, *Tabl. Moll. France*, p. 48.  
 1803. *Helix auricularia*, Lin. : MONTAGU, *Test. Brit.*, p. 375, pl. xvi, f. 2.



1805. *Limneus auricularius* : DRAPARNAUD, *Hist. Moll. France*, p. 49, pl. ii, f. 28 & 29.
1807. *Lymnæa auricularia* : LINK, *Beschreib. Nat. Samml. Univ. Rostock*, p. 138.
1807. *Helix auricularia*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 221.
1810. *Radix auriculatus* : MONTFORT, *Conch. Syst.*, ii, p. 267, fig., p. 266.
- 1813? *Lymnæa auricularia* : FLEMING, *Edinb. Ency.*, vii, p. 77.
1813. *Helix auricularia* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 56, pl. xxi, f. 17.
1817. *Helix auricularia*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 969.
1819. *Gulnaria auricularia*, Linn. : LEACH, *Moll. Brit. Synop.* (proofs), p. 148.
1821. *Limnæus auricularius*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 85, pl. iv, f. 17 & 18.
1823. *Helix auricularia* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1827. *Limnæa auricularia*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xlii, f. 29-32.
1830. *Limneus auricularius*, Linn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 372.
1831. *Limneus auricularius*, Drap. : TURTON, *Manual*, p. 117, f. 100.
1831. *Gulnaria auricularia* : LEACH, in Turton's *Manual*, p. 117, in synonym.
1837. *Limnæa (Gulnaria) auricularia* (L.) Lm. : BECK, *Index Moll.*, p. 115.
1840. } *Limnæus (Radix) auricularius*, Linn. : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 232, pl. ix, f. 100.
- Post }  
Sept. } *Lymnæa auricularia*, Lamarck : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 29, pl. xv, f. 29-32.
1841. (*Limnæus*) *Gulnaria Monardii* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 71, pl. xviii.
1845. *Lymnæa auricularia*, Lamarck : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 11, pl. ii, f. 11-14.
1851. *Limnæa canalis*, Villa MS. : DUPUY, *Hist. Nat. Moll. France*, p. 482, pl. xxii, f. 12.
1852. } *Gulnaria auricularia*, Linn. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 107.
1852. } *Limnæus auricularius*, Linnæus : FORBES & HANLEY,  
July. } *Brit. Moll.*, iv, p. 169, pl. cxxiii, f. 1 & 2.
1855. *Limnæa (Neritostoma) auricularia*, Linn. : H. & A. ADAMS, *Genera Moll.*, ii, p. 253.
1856. *Limnæa (Gulnaria) auricularia*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 462, pl. xxxiii, f. 21-31.
1857. *Limnæus (Radix) auricularius*, Linn. : GRAY, Turton's *Manual*, new ed., p. 201, f. 48, pl. ix, f. 100.

1859. *Limnæa auricula* [sic], Linn. : SOWERBY, *Illust. Index Brit. Shells*, pl. xxi, f. 5 & 6.  
 1862. *Limnæa auricularia*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 108; v, pl. vii, f. 4.  
 1863. *Limnæa auricularia*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 159, figs.  
 1881. *Limnæa (Auriculariana) auricularia*, Dupuy : SERVAIN, *Hist. Malac. Lac Balaton*, p. 49.

[GERMAIN (*Moll. France*, ii, p. 234) gives as synonyms :—*L. Hartmanni*, Studer; *L. ampla*, Hartmann; *L. Trenquelleoni*, Gassies; *L. ampulla*, Küster; *L. multizonæ*, Bourg.; *L. regularis*, Locard; and *L. stricta*, Locard. Some of these, however, may be referable more probably to *L. pereger*.]

First recorded as British in 1777, by T. Pennant, as *Helix auricularia*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

### 3. *Limnæa (Radix) lagotis* (Schrank).

Etym. :—Gr. λαγώς, a hare.

1803. *Buccinum lagotis* : SCHRANK, *Fauna Boica*, iii, p. 290.  
 1830. *Limneus acutus* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 373.  
 1835. *Limnæus vulgaris*, Pf. : ROSSMÄSSLER, *Icon.*, Hft. 1, p. 97, pl. ii, f. 53. [Non C. Pfeiffer.]  
 1847. *Limnæa (Gulnaria) acuta*, Jeffr. : BECK, *Amtl. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 123.  
 1871. *Limnæa vulgaris*, Rossm. : KOBELT, *Cat. Europ. Binnenconch.*, p. 54. [Non C. Pfeiffer.]  
 1881. *Limnæa (Gulnaria) lagotis*, Schrank : KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 118.  
 1881. *Limnæa lagotis*, Schrank : BENOIT, *Cat. Conch. Sicilia*, p. 125.  
 1904. *Limnæa (Radix) lagotis*, Schrank : KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 239.

[MARTENS (*Jahresb. St. Gall. Naturw. Gesell.*, 1889–90 (1891), p. 126) states that this species appears in Hartmann's collection as *L. gracilis*.]

First recorded as British in 1830, by J. G. Jeffreys, as *Limneus acutus*. (See ref. above.)

British Distribution in Time : Pliocene to Recent.

### 4. *Limnæa (Radix) pereger* (Müller).

Etym. :—Lat. *pereger*, a traveller. [There is no Latin adjective *pereger-ra*, *-rum*, and that form should, therefore, not be used.]



1774. *Buccinum peregrum*: MÜLLER, *Verm. Hist.*, ii, p. 130.
1777. *Helix putris*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 139, 4to, p. 121, pl. lxxxvi, f. 137. [Non Linné.]
1777. *Helix lævigatum*? Linn.: PENNANT, *t. c.*, 8vo, p. 140, 4to, p. 121, pl. lxxxvi, f. 139. [Abnormal specimen.]
1778. *Turbo trianfractus*: DACOSTA, *Test. Brit.*, p. 92, pl. v, f. 13.
1778. *Turbo patulus* [pars]: DACOSTA, *o. c.*, p. 95, pl. v, f. 17.
1789. *Bulinus peregrus* [sic], nob.: BRUGUIÈRE, *Ency. méth.*, Vers, i, p. 301.
1791. *Helix pereger*, Müll.: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3659.
1791. *Helix inflata*: GMELIN, *t. c.*, p. 3666.
1791. *Helix teres*: GMELIN, *t. c.*, p. 3667.
- 1801, f *Bulinus obscurus*: POIRET, *Coq. Aisne*, p. 35.
- Apr. { *Bulinus limosus*: POIRET, *o. c.*, p. 39.
- 1801, f *Limneus pereger*: DRAPARNAUD, *Tabl. Moll. France*, July. { p. 48.
- 1801, } *Limneus auriculus*, var. *b*: DRAPARNAUD, *o. c.*, p. 48.
- July, f }
1803. *Helix peregra*, Gmel.: MONTAGU, *Test. Brit.*, p. 373, pl. xvi, f. 3.
1803. *Helix lutea*: MONTAGU, *o. c.*, p. 380, pl. xvi, f. 6.
1803. *Helix limosa*, Lin.: MONTAGU, *o. c.*, p. 381, pl. xvi, f. 1.
1805. *Limneus ovatus*: DRAPARNAUD, *Hist. Moll. France*, p. 50, pl. ii, f. 30 & 31.
1805. *Limneus pereger*, Mull.: DRAPARNAUD, *o. c.*, p. 50, pl. ii, f. 32-37.
1807. *Helix putris*, Pennant: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 219, pl. v, f. 8.
1807. *Lymnea limosa*: LINK, *Beschreib. Nat. Samml. Univ. Rostock*, p. 138.
- 1813? *Lymnea putris*: FLEMING, *Edinb. Ency.*, vii, p. 77.
- 1813? *Lymnæa lutea*: FLEMING, *l. c.*
1813. *Helix putris*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 56, pl. xix, f. 30; xxi, f. 13.
1817. *Helix pereger*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 965.
1818. *Helix limosa*: BROWN, *Mem. Wernerian Soc.*, ii, p. 530, pl. xxiv, f. 11.
1819. *Gulnaria pereger*, Müll.: LEACH, *Moll. Brit. Synop.* (proofs), p. 146.
1819. *Gulnaria lacustris*: LEACH, *o. c.*, p. 147.
1820. *Limneus fontinalis*, mihi: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 93. [Reprint, "Syst. Verzeichn.," p. 27.]
1820. *Limneus Hartmanni*, mihi: STUDER, *t. c.*, p. 93. [Reprint, "Syst. Verzeichn.," p. 27.]

1820. *Limneus acronicus*, mili: STUDER, *t. c.*, p. 93. [Reprint, "Syst. Verzeichn.," p. 28.]
1821. *Limneus ovatus*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 89, pl. iv, f. 21.
1821. *Limneus vulgaris*: C. PFEIFFER, *t. c.*, p. 89, pl. iv, f. 22.
1821. *Limneus pereger*, Müll.: C. PFEIFFER, *t. c.*, p. 90, pl. iv, f. 23 & 24.
1822. *Lymnæa ovata*, Drap.: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 161.
1822. *Lymnæa intermedia*, ex D., Daudebard: LAMARCK, *t. c.*, p. 162.
1823. *Lymnæa succinea*: NILSSON, *Hist. Moll. Svec.*, 1822 [i.e. 1823], p. 66.
1823. *Helix putris*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1823. *Helix lutea*: [BROWN], *t. c.*, p. 461.
- 1826, } *Limneus Scaturiginum*, Drap.: TURTON, *Zool. Journ.*,  
Apr. } ii, p. 565.
- [DRAPARNAUD (*Tabl. Moll. France*, 1801, p. 53: *Hist. Moll. France*, 1805, p. 56, pl. iii, f. 14 & 15) under the genus *Physa* gave this name to a small dextral shell, which Michaud (*Compl. Hist. Moll. France Drap.*, 1831, p. 85) stated was the young of *Achatina folliculus*, Lamk. Fleming (*Brit. Anim.*, 1828, p. 274) surmised that Turton's shells were the young of *L. octona* [= *glabra*], whilst Jeffreys (*Trans. Linn. Soc.*, xvi, 1833, p. 519) referred them to *L. stagnalis*; but Turton's figure (*Manual*, 1831, fig. 102) is very clearly that of a young *L. pereger*.]
- 1826, } *Lymnæa pereger*, Drap.: RISSO, *Hist. Nat. Europ. mérid.*,  
Nov. } iv, p. 95.
- 1826, } *Lymnæa auricularia* (N.): RISSO, *t. c.*, p. 95.  
Nov. }
1827. *Limnæa pereger*, Lam.: BROWN, *Illust. Brit. Conch.*, ed. 1, pl. xlii, f. 8, 9, 36 & 38.
1827. *Limnæa ovata*, Drap.: BROWN, *o. c.*, pl. xlii, f. 10 & 11.
1827. *Limnæa limosa*, Linn.: BROWN, *o. c.*, pl. xlii, f. 39 & 40.
1827. *Limnæa auricularia*, var.: BROWN, *o. c.*, pl. xlii, f. 37.
1827. *Limnæa lacustris*, Brown's MS.: BROWN, *o. c.*, pl. xlii, f. 24 & 25.
1827. *Lutea subpellucida*, Brown's MS.: BROWN, *o. c.*, pl. xlv, f. 50 & 51. [Nom. nov. for *Helix lutea*, Montagu.]
1828. *Limnæa limosa*: FLEMING, *Hist. Brit. Anim.*, p. 274.
- 1830, } *Limneus Partschii*, Fitz.: MENKE, *Synop. Moll.*, ed. 2,  
Apr. } p. 38, in synonym.
- 1830, } *Limneus pereger*, Müll.: JEFFREYS, *Trans. Linn. Soc.*,  
May. } xvi, p. 374.
1831. *Limneus pereger*, Drap.: TURTON, *Manual*, p. 118, f. 101.

1831. *Limneus Scaturiginum*, Drap.: TURTON, *t. c.*, p. 119, f. 102. [See note above under 1826 Turton.]
1831. *Gulnaria pereger*: LEACH, in Turton's *Manual*, p. 118, in synon.
1831. *Gulnaria lacustris*: LEACH, *o. c.*, p. 119, in synon.
1831. *Limnea intermedia*, nobis: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 86, pl. xvi, f. 17 & 18.
1831. *Limnea marginata*, nobis: MICHAUD, *o. c.*, p. 88, pl. xvi, f. 15 & 16.
1833. *Limnea thermalis*, nob.: BOUBÉE, *Bull. Hist. Nat. France*, p. 20.
1834. *Limnea lineata*: BEAN, *Mag. Nat. Hist.* (London), vii, p. 493, f. 62.
1835. *Limneus ampullaceus*: ROSSMÄSSLER, *Icon.*, i, hft. 2, p. 19, f. 124.
1837. *Limnæa* (s.s.) *geisericola*, Bk.: BECK, *Index Moll.*, p. 114.
1837. *Limnæa* (*Gulnaria*) *ovata*, Drp.: BECK, *o. c.*, p. 114.
1838. } *Limneus membranaceus*, PORRO: PORRO, *Malac. Comasca*,  
Aug. } p. 90, pl. ii, f. 9.
1838. } *Limnæa lacustris*, nob.: POTIEZ & MICHAUD, *Gall. Moll.*,  
Oct. } i, p. 219, pl. xxii, f. 11 & 12.
1839. *Limnæa peregrina* (Drap.): MAUDUYT, *Tabl. Moll. Vienne*, p. 95.
1840. } *Limnæus* (*Radix*) *pereger*, Müller: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 233, pl. ix, f. 101.
- Post } *Limnæa pereger*, Lamarek: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 29, pl. x, f. 50 & 51; pl. xv, f. 8-11,  
1840. } 36-40; pl. xviii, f. 17 & 18.
- Post } *Amphipeplea lacustris*, Leach: BROWN, *o. c.*, p. 30, pl. xv,  
Sept. } f. 24 & 25.
1840. } 1840. }
1841. (*Limnæus*) *Gulnaria ampla*: HARTMANN, *Erd- & Süßsw.-Gasterop.*, p. 69, pl. xvii.
1841. (*Limnæus*) *Gulnaria Hartmanni*: HARTMANN, *o. c.*, p. 72, pl. xix.
1845. *Limnæa pereger*, Lamarek: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 11, pl. ii, f. 15-23.
1845. *Amphipeplea lacustris*, Leach: BROWN, *o. c.*, p. 14, pl. iii, f. 5 & 6.
1847. *Limnæa* (*Limnophysa*) *pereger*, Nilss.: BECK, *Amtl. Ber. 2A. Versamml. Deutsch. Naturf.*, p. 123.
1847. *Limnæa* (*Limnophysa*) *intermedia*, Lam.: BECK, *t. c.*, p. 123.
1847. *Limnæa* (*Limnophysa*) *geisericola*, Beck: BECK, *t. c.*, p. 123.
1849. } *Limnæa glacialis*, Dup.: DUPUY, *Cat. Extramar. Gallie*  
Feb. } *Test.* [p. 4], no. 199.
1849. } *Limnæa Trencalensis*: GASSIES, *Tabl. Moll. Argenais*,  
Mar. } p. 163, pl. ii, f. 1.

- 1849, } *Limnæa Nouletiana* : GASSIES, *o. c.*, p. 166, pl. ii, f. 2.  
Mar. }
- 1850, } *Lymnæus ovatus*, Drap. : ZELEBOR, *Ber. Mitthl. Freund.*  
Nov. } *Naturw. Wien*, vii, p. 226.
- 1850, } *Lymnæus fontinalis*, Studer : ZELEBOR, *t. c.*, p. 226.  
Nov. }
- ?1850, } *Limnæa Hookeri* : REEVE, *Proc. Zool. Soc. Lond.*, xviii,  
Nov. } p. 49.  
12. }
1851. *Limnæa nitida*, Ziegl. : DUPUY, *Hist. Moll. France*,  
p. 473.
1851. *Limnæa consobrina*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa opaca*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa fuliginosa*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa callosa*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa fulva*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa solemia*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa bilabiata*, Hartm. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa diaphana*, Parr. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa cornea*, Ziegl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa Blauneri*, Shuttl. : DUPUY, *o. c.*, p. 473.
1851. *Limnæa Boissii* : DUPUY, *o. c.*, p. 479, pl. xxv, f. 9.
1851. *Limnæa canalis*, Villa : DUPUY, *o. c.*, p. 482, pl. xxii,  
f. 12.
- 1852, } *Gulnaria pereger*, Müll. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 106.
- 1852, } *Gulnaria fragilis* : LEACH, *o. c.*, p. 107.  
Feb. }
- 1852, } *Lymnæus pereger*, Müller : FORBES & HANLEY, *Brit.*  
July. } *Moll.*, iv, p. 165, pl. cxxiii, f. 3-7.
1853. *Limnæa teres* : BOURGUIGNAT, *Cat. Moll. Sauley*, p. 58.
1855. *Limnæa limosa*, mihi : MALM, *Götheb. K. Vet. & Vitt.*  
*Samhälles Handl.*, N.F. iii, p. 142.
- 1855, } *Limnæa (Neritostoma) pereger*, Müll. : H. & A. ADAMS,  
Nov. } *Genera Moll.*, ii, p. 254.
1856. *Limnæa (Gulnaria) limosa*, Linn. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 465, pl. xxxiv,  
f. 11 & 12. [Non Linné.]
1856. *Limnæa (Gulnaria) pereger*, Müll. : MOQUIN-TANDON,  
*t. c.*, p. 468, pl. xxxiv, f. 13-16.
1857. *Lymnæus (Radix) pereger*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 202, pl. ix, f. 101.
1861. *Lymnæus glutinosus* : PORTER, *Geol. Peterborough*, pl. ii,  
explan. f. 5.
1862. *Limnæa pereger*, Müller : JEFFREYS, *Brit. Conch.*, i,  
p. 104; v, pl. vii, f. 3.
1863. *Limnæa limosa*, Linnæus : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 157, figs.
1867. *Lymnæa (Neritostoma) vulgaris*, C. Pfr. : BRUSINA, *Rad*  
*Jugoslav. Akad.*, i, p. 25.

1867. *Lymnæa* (*Neritostoma*) *intermedia*, Lam. : BRUSINA, *t. c.*, p. 25.
1872. *Limnæus ovatus*, Drap. : SHUTTLEWORTH, *Enum. Plantes & Moll. terr. Corse*, p. 28.
1872. *Limnæus pereger*, Drap. : SHUTTLEWORTH, *l. c.*
1877. *Limnæa profunda*, m. : CLESSIN, *Malak. Blätt.*, xxiv, p. 171, pl. iii, f. 8. [*Teste* Roszkowski.]
1877. *Limnæa Foreli*, m. : CLESSIN, *t. c.*, p. 172, pl. iii, f. 2-4. [*Teste* Roszkowski.]
1878. *Limnæa Steenstrupii* : CLESSIN, *Malak. Blätt.*, xxv, p. 79, pl. iii, f. 16.
1881. *Limnæa* (*Limosiana*) *vulgaris*, C. Pfeiff. : SERVAIN, *Hist. Malac. Lac. Balaton*, p. 52.
1881. *Limnæa* (*Peregriana*) *pereger*, Lamk. : SERVAIN, *o. c.*, p. 56.
1889. *Limnæa limosa*, Linnæus : GOURDON, *Cat. Moll. Vall. de la Pique*, p. 71.
1889. *Limnæa glacialis*, Dupuy : GOURDON, *l. c.*
1894. *Limnæa* (*Gulnaria*) *ovata*, Drap. : WEISS, *Nachrbl. Deutsch. Malak. Gesell.*, xxvi, p. 159.
1894. *Limnæa* (*Limnophysa*) *pereger*, Müll. : WEISS, *t. c.*, p. 159.
1904. *Limnæa* (*Radix*) *ovata*, Drap. : KOBELT, in Rossmässler's *Icon.*, N.F. xi, p. 239.
1913. *Limnæa* (*Limnys*) *Yungi*, nov. sp. : PIAGET, *Journ. de Conchyl.*, lx, p. 209, pl. ix, f. 1. [*Teste* Roszkowski.]

[LOCARD (*Coq. Eaux douces France*, 1893 : re-issued in *Ann. Soc. Agric. Lyon*, Sér. VII, tom. i, 1894) includes :—

“ Groupe du *L. mucronata* ” (pp. 25-26) :

*L. mucronata*, Held, *Isis*, xxix, 1836, col. 278.

*L. alpestris*, Clessin, *Deutsch. Exc. Moll. Fauna*, 1877, p. 370.

*L. albescens*, Clessin, *Corr. Blätt. Ver. Regensb.*, xxvii, 1873, p. 73.

*L. Mongazonæ*, Servain, *Bull. Soc. Malac. France*, iv, 1887, p. 241.

*L. marginata*, Michaud, *Compl. Hist. Moll. France Drap.*, 1831, p. 88.

*L. stricta*, Locard, n. sp.

“ Groupe du *L. ampullacea* ” (pp. 26-29) :

*L. ampullacea*, Rossmässler, *Icon.*, i, 1835, p. 19, f. 124.

*L. subampullacea*, Bourg., in Servain, *Hist. Malac. Lac Balaton*, 1881, p. 54.

*L. dohioliformis*, Küster, *Conch. Cab.*, 1869, p. 10, pl. ii, f. 9-11.

*L. tumida*, Held, *Isis*, xxix, 1836, col. 278.

- L. microcephala*, Küster, *Conch. Cab.*, 1869, p. 9,  
pl. ii, f. 7 & 8.  
*L. Nouletiana*, Gassies, *Moll. Agenais*, 1849, p. 166,  
pl. ii, f. 2.  
*L. glacialis*, Dupuy, *Cat. Extramar. Gallie Test.*  
[p. 4], no. 199.  
*L. mammillata*, Bourg., in Servain, *Hist. Malac.*  
*Lac Balaton*, p. 54.  
*L. membranacea*, Porro, *Malac. Comasca*, 1838,  
p. 90, pl. ii, f. 9.  
*L. physella*, Servain, *Hist. Malac. Lac Balaton*,  
1881, p. 72.  
*L. hemispherica*, Menke, in Küster, *Conch. Cab.*,  
1862, p. 53, pl. xi, f. 32-34.  
*L. Sandriformis*, Bourg., in Servain, *Hist. Malac.*  
*Lac Balaton*, 1881, p. 57.

“ Groupe du *L. limosa* ” (pp. 29-31) :

- L. limosa*, Linné, *Syst. Nat.*, ed. 10, 1758, p. 774.  
*L. limosina*, Locard, *Échange*, viii, 1892, p. 18.  
*L. Deana*, Tassy [MS.].  
*L. hydroriga*, Martin [MS.].  
*L. conglobata*, Locard, *Échange*, viii, 1892, p. 18.  
*L. putriformis*, Locard, *t. c.*, p. 18.  
*L. læta*, Locard, *t. c.*, p. 18.  
*L. opressa*, Locard, *t. c.*, p. 18.  
*L. canalis*, Villa, in Dupuy, *Hist. Moll. France*,  
1851, p. 482, pl. xxii, f. 12.  
*L. obtusa*, Servain, *Hist. Malac. Lac Balaton*, 1881,  
p. 51.

“ Groupe du *L. intermedia* ” (pp. 31-32) :

- L. intermedia*, Michaud, *Compl. Hist. Moll. France*  
*Drap.*, 1831, p. 86, pl. xvi, f. 17-18.  
*L. Millieri*, Bourguignat [MS.]  
*L. augustana*, Milliere [MS.].  
*L. Ataxiaca*, Locard, n. sp.  
*L. Michaudi*, Locard, n. sp.  
*L. biformis*, Küster, *Conch. Cab.*, 1862, p. 57,  
pl. xii, f. 13 & 14.

“ Groupe du *L. vulgaris* ” (pp. 32-34) :

- L. vulgaris*, C. Pfeiffer, *Naturg. Deutsch. Moll.*, i,  
p. 89, pl. iv, f. 22.  
*L. Rochi*, Fér., 1807, teste Bourguignat in Servain,  
*Hist. Malac. Lac Balaton*, 1881, p. 51.  
*L. crassa*, Bourguignat, in Servain, *t. c.*, p. 51.  
*L. lacustrina*, Clessin, *Corr. Blätt. Ver. Regensb.*,  
xxvii, 1873, p. 73.



- L. nubigena*, Bourguignat, *Amén. Malac.*, i, 1856, p. 145, pl. vii, f. 13-15.
- L. rosea*, Gallenstein, in Clessin, *Deutsch. Excur. Moll. Fauna*, 1877, p. 369, f. 218.
- L. succinea*, Nilsson, *Hist. Moll. Sveciæ*, 1822, p. 66.
- L. rubella*, Clessin, *Corr. Blätt. Ver. Regensburg*, xxvii, 1873, p. 73.
- L. Balthica*, Linné, *Fauna Succ.*, ed. 2, 1746, p. 532; *Syst. Nat.*, ed. 10, 1758, p. 775.
- “Groupe du *L. pereger*” (pp. 35-38):
- L. pereger*, Müller, *Verm. Hist.*, ii, p. 130.
- L. subsolida*, Locard, nom. nov. for *solida*, Villa in Strobel.
- L. frigida*, Charpentier [MS.]
- L. plagiostoma*, Bourguignat, in Servain, *Hist. Malac. Lac Balaton*, 1881, p. 55.
- L. Cenisia*, Martin, in Servain, *Hist. Malac. Lac Balaton*, 1881, p. 56.
- L. cryomphila*, Martin, in Servain, *o. c.*, p. 56.
- L. crymacea*, Martin, in Servain, *o. c.*, p. 52.
- L. Maureliana*, Bourguignat, in Servain, *o. c.*, p. 57.
- L. prolata*, Locard, n. sp. } These two probably  
*L. meridionalis*, Locard, u. sp. } refer to his paper on the Moll. of Saint-Martin-de-Lantosque, in *Mém. Soc. Sci. Nat. Cannes*, viii, 1879, pp. 146-147.
- L. nivalis*, Bourguignat, “1880, S. Martin-Lent., p. 7.”
- L. Longsdorffi*, Bourguignat, “1880, S. Martin-Lent, p. 8.”
- L. apricana*, Bourguignat, in Servain, *Hist. Malac. Lac Balaton*, 1881, p. 55.
- L. stenostoma*, Bourguignat, in Servain, *o. c.*, p. 59.
- L. Ullipitschi*, Westerlund, *Nachrbl. Deutsch. Malac. Gesell.*, vii, 1875, p. 85 (= *L. Raiblensis*, Servain, *Hist. Malac. Lac Balaton*, p. 58).
- “Groupe du *L. thermalis*” (pp. 38-39):
- L. thermalis*, Boubée, *Bull. Hist. Nat. France*, 1833, p. 20.
- L. humilis*, Locard, n. sp.
- L. Reynesi*, Paladilhe, *Ann. Sci. Nat. (Zool.)*, Sér. VI, tom. ii, art. 8, 1875, p. 4.
- L. Putoni*, Bourguignat, in Servain, *Hist. Malac. Lac Balaton*, 1881, p. 59 (= *L. thermalis*, Puton non Boubée).

*L. Sabauda*, Locard, n. sp.

*L. parvula*, Locard, n. sp.

First recorded as British in 1674, by M. Lister  
(*Phil. Trans.*, ix, p. 99, pl. ii, f. 20).

British Distribution in Time : Pliocene to Recent.

5. *Limnæa (Galba) palustris* (Müller).

Etym. :—Lat. *paluster*, marshy.

1774. *Buccinum palustre* : MÜLLER, *Verm. Hist.*, ii, p. 131.  
 1789. *Helix crassa* : RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 276.  
 1789. *Bulimus palustris*, Nob. : BRUGUIÈRE, *Ency. méthod.*,  
     Vers, i, p. 302.  
 1791. *Helix palustris*, Müll. : GMELIN, in *Linn. Syst. Nat.*,  
     ed. 13, i, pt. 6, p. 3658.  
 1791. *Helix corvus* : GMELIN, *t. c.*, p. 3665.  
 1799. *Helix palustris* : PULTENEY, *Cat. Dorset.*, p. 48.  
 1801. *Limneus palustris* : DRAPARNAUD, *Tabl. Moll. France*,  
     p. 50.  
 1803. *Helix fragilis*, Linn. : DONOVAN, *Brit. Shells*, v, pl. clxxv,  
     f. 1. [Non Linné.]  
 1803. *Helix fontinalis* : DONOVAN, *t. c.*, pl. clxxv, f. 2.  
 1803. *Helix palustris*, Gmel. : MONTAGU, *Test. Brit.*, p. 370,  
     pl. xvi, f. 10.  
 [According to Montagu (*Test. Brit. Suppt.*, p. 138) this  
   species occurred in the Portland collection under  
   the name of *Helix fragilis*.]  
 1803. *Buccinum danubiale* : SCHRANK, *Fauna Boica*, p. 286.  
 1805. *Limneus palustris*, Mull. : DRAPARNAUD, *Hist. Moll.*  
     *France*, p. 52, pl. ii, f. 40–42; iii, f. 1 & 2.  
 1807. *Lymnea palustris* : LINK, *Beschreib. Nat. Samml. Univ.*  
     *Rostock*, p. 139.  
 1807. *Helix palustris* : MATON & RACKETT *Trans. Linn. Soc.*,  
     viii, p. 216, pl. v, f. 8.  
 1813. *Helix palustris* : RACKETT, in Pulteney, *Cat. Dorset.*,  
     ed. 2, p. 55, pl. xviii, f. 18.  
 1813? *Lymnæa palustris* : FLEMING, *Edinb. Ency.*, vii, p. 77.  
 1817. *Helix palustris*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 963.  
 1819. *Stagnicola communis* : LEACH, *Moll. Brit. Synop.* (proofs),  
     p. 142.  
 1821. *Limnæus palustris*, Drap. : C. PFEIFFER, *Naturg. Deutsch.*  
     *Moll.*, i, p. 88, pl. iv, f. 20.  
 1821. *Limnæus fuscus* : C. PFEIFFER, *t. c.*, p. 92, pl. iv,  
     f. 25.  
 1821. *Limnæus corvus* : HARTMANN, *Neue Alpina*, i, p. 249.  
 1821, } *Limneus elodes* : SAY, *Journ. Acad. Nat. Sci. Philad.*,  
 Nov. }    ii, p. 169.  
 1823. *Helix palustris* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.



1826. *Lymnea leachiana* (N.) : RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 95, pl. iii, f. 32.
1827. *Limnæa palustris*, Lam. : BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xlii, f. 4, 6, 7, 11, 14-18, 26 & 33.
1830. *Limneus communis*, Leach MS. : JEFFREYS, *Trans. Linn.*  
*Soc.*, xvi, p. 376.
1830. *Stagnicola communis*, Leach MS. : JEFFREYS, *t. c.*, p. 376,  
in synon.
1830. *Stagnicola tinctus* : JEFFREYS, *t. c.*, p. 378.
1831. *Limneus palustris*, Drap. : TURTON, *Manual*, p. 123,  
f. 107.
1831. *Stagnicola communis* : LEACH, in Turton's *Manual*,  
p. 123, in synon.
1833. *Limnophysa palustris*, mihi : FITZINGER, *Beitr. Landesk.*  
*Oesterr.*, iii, p. 112.
1834. *Limnæus paluster* : TROSCHER, *De Limnæaceis*, p. 57.
- ?1834. *Limnæus cinctus* : TROSCHER, *o. c.*, p. 58.
1837. *Limnæa* (*Limnophysa*) *palustris* (O. Müll.), Drp. : BECK,  
*Index Moll.*, p. 110.
1840. } *Limnæus* (*Stagnicola*) *palustris*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 239, pl. ix, f. 107.
- Post } *Lymnæa palustris*, Lamarck : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 28, pl. xv, f. 4, 6, 7, 11, 14-18,  
1840. } 26 & 33.
1841. *Limnæa elodes*, Say : GOULD, *Invert. Mass.*, p. 221,  
f. 146-7.
1841. *Lymnea Nuttalliana* : LEA, *Proc. Amer. Phil. Soc.*, ii,  
p. 33.
1841. *Limnæa plebia*, Gould [MS.] : ADAMS, *Amer. Journ. Sci.*,  
xl, p. 268.
1842. *Limnea fragilis*, Lin. : HALDEMAN, *Mon. Limniades*,  
p. 20, pl. vi, f. 1-11. [*Non Linné.*]
1842. *Limnea expansa*, Hald. : HALDEMAN, *o. c.*, p. 29, pl. ix,  
f. 6-8. [*Monstros.*]
1844. *Lymnea communis* : LOUDON, *Glimpses of Nature*, p. 162,  
fig. (reversed).
1845. *Lymnæa palustris*, Lamarck : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 9, pl. ii, f. 1-8 & 10.
1847. *Lymnea Vogesiaca*, nobis : PUTON, *Essai Moll. Voges*,  
p. 58.
1847. *Lymnea disjuncta* ? nobis : PUTON, *o. c.*, p. 60.
1849. *Limnæa corvus*, Gmel. : DUPUY, *Cat. Extramar. Gallia*  
*Test.* [p. 2], no. 195.
- 1852, } *Stagnicola communis* : LEACH, *Moll. Brit. Synop.*, p. 103.  
Feb. }
- 1852, } *Limnæus palustris*, Linnæus [sic] : FORBES & HANLEY,  
July. } *Brit. Moll.*, iv, p. 180, pl. cxxiv, f. 2.
1851. *Limnæa variabilis*, Millet : MILLET, *Ann. Soc. Linn.*  
*dépt. Maine & Loire*, i, p. 299.

1856. *Limnæus* (*Limnus*) *palustris*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 475, pl. xxxiv, f. 25-35.
1856. *Lymnæa proxima* : LEA, *Proc. Acad. Nat. Sci. Philad.*, viii, p. 80.
1857. *Limnæus* (*Stagnicola*) *palustris*, Müller : GRAY, *Turton's Manual*, new ed., p. 208, f. 51, pl. ix, f. 107.
1858. *Lymnæa Haydenii* : LEA, *Proc. Acad. Nat. Sci. Philad.*, 1858 (1859), p. 166.
1862. *Limnæa palustris*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 113; v, pl. vii, f. 6.
1863. *Limnæa palustris*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 162, figs.
1867. *Limnæa pseudostagnalis*, Nobis : MALZINE, *Mém. Soc. Sci. Hainaut*, Sér. III, tom. i, p. 362, pl. ii, f. 5 & 6.
1872. *Limnæus palustris*, Drap. : SHUTTLEWORTH, *Énumération Plantes & Moll. terr. Corse*, p. 28.
1874. *Limnæa abyssicola*, m. : BROT, *Bull. Soc. Vaudoise Sci. Nat.*, xiii, p. 112, pl. iii, f. 5 & 6. [*Teste Roszkowski.*]
1880. *Limneus* (*Entochilias*) *labio*, Sandb. : SANDBERGER, *Palaeontograph.*, xxvii (N.F. vii), p. 101, pl. xii, f. 11-11b.
1881. *Limnæa* (*Corvusiana*) *corvus*, Gmelin : SERVAIN, *Hist. Malac. Lac Balaton*, p. 51.
1881. *Limnæa* (*Palustrisiana*) *palustris*, Fleming : SERVAIN, *o. c.*, p. 61.
1881. *Limnæa* (*Palustrisiana*) *corviformis*, Bourguignat [MS.] : SERVAIN, *o. c.*, p. 61, in synon.
1883. *Limnæa* (*Limnophysa*) *palustris*, Müll. : RETOWSKI, *Malak. Blätt.*, N.F., vi, p. 29.
1888. *Limnæa corvina*, Nob. : CHATENIER, *Cat. Moll. Drôme*, p. 36.
1889. *Limnæa palustris*, Müller : GOURDON, *Cat. Moll. Vall. de la Pique*, p. 73.

[GERMAIN (*Moll. France*, ii, pp. 239-242) includes under the sub-genus *Stagnicola* the following synonyms, all of which are also in Locard :—*Limnæa fuscula*, Fagot; *L. hæmastoma*, Bourg.; *L. opisthostoma*, Bourg.; *L. ligérica*, Bourg.; *L. muriatica*, Bourg.; *L. limbata*, Ziegl. in Moq.-Tand.; *L. vulnerata* Küster; *L. turriculata*, Held; *L. Renoufi*, Servain; *L. contorta*, Bourg.; *L. parvula*, Servain; *L. corviformis*, Bourg. in Locard; *L. strangulata*, Locard.]  
 First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 21.)

British Distribution in Time : Cromerian to Recent. [The record from the Pliocene is due to misidentification.]

6. *Limnæa (Galba) truncatula* (Müller).

Etym. :—Lat. dimin. from *truncatus*, maimed or shortened.

1774. *Buccinum truncatulum* : MÜLLER, *Verm. Hist.*, ii, p. 130.  
 1789. *Buccinum fossarum*, n. sp. : STUDER, in COXE, *Trav. in Switzerld.*, iii, p. 389. [*Nom. nud.*]  
 1789. *Bulimus truncatus*, nobis : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 310. [*Non Pfeiffer.*]  
 1791. *Helix truncatula* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3659.  
 1801, } *Bulimus obscurus* : POIRET, *Cog. Aisne*, p. 35. [*Non*  
 Apr. } Müller.]  
 1801, } *Limneus minuta* [sic] : DRAPARNAUD, *Tabl. Moll. France*,  
 July. } p. 51.  
 1803. *Galba pusilla* : SCHRANK, *Fauna Boica*, p. 285. [*Teste*  
 Fitzinger.]  
 1803, } *Helix fossaria* : MONTAGU, *Test. Brit.*, p. 372, pl. xvi, f. 9.  
 Sept. }  
 1805. *Limneus minutus* : DRAPARNAUD, *Hist. Moll. France*,  
 p. 53, pl. iii, f. 5–7.  
 1807. *Helix fossaria*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 217, pl. v, f. 9.  
 1813. *Helix fossaria* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 56, pl. xviii, f. 17.  
 1813? *Lymnæa fossaria* : FLEMING, *Edinb. Ency.*, vii, p. 77.  
 1817. *Helix fossaria*, Mont. : DILLWYN, *Cat. Shells*, ii, p. 964.  
 1817. *Helix truncatula*, Müll. : DILLWYN, *t. c.*, p. 967.  
 1818. *Lymnea fossaria* : FLEMING, Suppt. 4–6th ed. *Ency. Brit.*, iii, p. 312.  
 1819. *Stagnicola minuta*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 143.  
 1821. *Limnæus minutus*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 93, pl. iv, f. 27.  
 1823. *Helix fossaria* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.  
 1826. *Lymnea minuta*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 95.  
 1827. *Limnæa rivulus*, Brown's MS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 27.  
 1827. *Limnæa fossaria*, Brown's MS. : BROWN, *t. c.*, pl. xlii, f. 12 & 13.  
 1830. *Limneus truncatulus*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 377.  
 1830. *Limneus sabulatus*, nobis : KICKX, *Synop. Moll. Brabant.*, p. 60, figs. 13 & 14.  
 1831. *Limneus fossarius*, Mont. : TURTON, *Manual*, p. 124, f. 108.  
 1831. *Stagnicola minuta* : LEACH, in Turton's *Manual*, p. 124, in synon.  
 1833. *Limnophysa minuta*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 113.

- ?1835. *Lymnæa gingivata*: GOUPIL, *Hist. Moll. Sarthe*, p. 63, pl. i, f. 8-10. [Germain considers this to be the young of *L. glabra*.]
1837. *Limnæa* (*Limnophysa*) *truncatula* (O. Müll.), Jeff.: BECK, *Index Moll.*, p. 112.
- 1840, Apr. { *Limnæus* (*Stagnicola*) *truncatulus*, Müller: GRAY, *Turton's Manual*, new ed., p. 240, pl. ix, f. 108.
- Post Sept. { *Lymnæa minuta*, Drapernaud: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 28, pl. xiv, f. 27; xv., f. 12 & 13.
1840. {
1841. *Limnæa ferruginea*: HALDEMAN, *Monog. Limniades*, no. 3, p. iii of wrapper; no. 4, 1842, p. 49, pl. xiii, f. 19 & 20.
1845. *Lymnæa minuta*, Drapernaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 9, pl. i, f. 26 & 27.
1847. *Lymnæa oblonga*? : PUTON, *Essai Moll. Vosges*, p. 60.
- 1852, Feb. } *Stagnicola minuta*, Drap.: LEACH, *Moll. Brit. Synop.*, p. 104.
- 1852, July. } *Limnæus truncatulus*, Müller: FORBES & HANLEY, *Brit. Moll.*, iv, p. 177, pl. cxxiv, f. 3.
1852. *Limnæa microstoma*, Drouet [MS.]: BAUDON, *Mém. Soc. Acad. Oise*, ii, p. 102.
1856. *Limnæa* (*Lymnæus*) *truncatula*, Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 473, pl. xxxiv, f. 21-24.
1856. *Limnæa* (*Lymnæus*) *Doublieri*, Requien MS.: MOQUIN-TANDON, *t. c.*, p. 474, pl. xxxiv, f. 24.
1857. *Limnæus* (*Stagnicola*) *truncatulus*, Müller: GRAY, *Turton's Manual*, new ed., p. 210, pl. ix, f. 108.
1862. *Limnæa truncatula*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 115; v, pl. vii, f. 7.
1863. *Limnæa truncatula*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 164, figs.
1867. *Lymnæa* (*Bulimineæ*) *truncatula*, Müll.: BRUSINA, *Rad Jugoslav. Akad.*, i, p. 102.
1872. *Limnæus minutus*, Drap.: SHUTTLEWORTH, *Énumération Plantes & Moll. terr. Corse*, p. 28.
1875. *Limnæus* (*Limnophysa*) *truncatulus*, Müller: SANDBERGER *Land- & Süßw.-Conch. Vorwelt*, p. 785, pl. xxxiii, f. 27; xxxvi, f. 36.
1881. *Limnæa* (*Truncatuliana*) *truncatula*, Goupil: SERVAIN, *Hist. Malac. Lac Balaton*, p. 63.
1885. *Limnæa* (*Fossaria*) *truncatula*, Müll.: WESTERLUND, *Fauna Paläarct. Region*, v, p. 49.
1886. *Limnæus* (*Gulnaria*) *truncatulus*, Müll.: BOETTGER, in Radde, *Fauna & Flora Caspi-Gebictes*, p. 323.

1905. *Lymnæa (Galba) truncatula*, Müller : DALL, *Harriman Alaska Exped.*, xiii, p. 72, fig. 49.
1912. *Limnæa (Galba) truncatula*, Müller : GERMAIN, *Arch. Mus. Hist. Nat. Lyon*, xi, mém. 3, p. 110.
- [GERMAIN (*Moll. France*, ii, pp. 243-5) cites under the sub-genus *Galba* the following synonyms, some of which are also in Locard:—*Limnæa subtruncata*, Caziot; *L. falconica*, Caziot; *L. Lafayi*, Caziot; *L. Grimaldii*, Caziot; *L. Moquini*, Locard; *L. pumila*, Locard; and *L. montana*, Bourg.]
- First recorded as British in 1803, by G. Montagu (*Test. Brit.*, p. 372, pl. xvi, f. 9), as *Helix fossaria*.
- British Distribution in Time: Cromerian to Recent.  
[The record for the Pliocene is an error.]

### 7. *Limnæa (Leptolimnæa) glabra* (Müller).

Etym. :—Lat. *glaber*, smooth.

1774. *Buccinum glabrum* : MÜLLER, *Verm. Hist.*, ii, p. 135.
1777. *Helix octona* ? Linn. : PENNANT, *Brit. Zool.*, ed. 4, 8vo, p. 138; 4to, p. 120, pl. lxxxvi, f. 135.
1789. *Bulimus glaber*, nob. : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 312.
1791. *Helix glabra* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3658.
1801. *Bulimus leucostoma* : POIRET, *Coq. Aisne*, p. 37. [*Teste Lamarck, and Millet.*]
1803. *Helix octanfracta* : MONTAGU, *Test. Brit.*, p. 396, pl. xi, f. 8.
1805. *Limneus elongatus* : DRAPARNAUD, *Hist. Moll. France*, p. 53, pl. iii, f. 3 & 4.
1813. *Helix octanfracta* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xviii, f. 11.
- 1813? *Lymnæa octanfracta* : FLEMING, *Edinb. Ency.*, vii, p. 78.
1817. *Helix peregrina*, Gmel : DILLWYN, *Cat. Shells*, ii, p. 954.  
[Non Gmelin.]
1818. *Lymnæa octanfracta* : FLEMING, Suppt. 4-6th ed. *Ency. Brit.*, iii, p. 312.
1819. *Stagnicola octanfracta*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs), p. 141.
1821. *Limnæus elongatus*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 92, pl. iv, f. 26.
1821. *Limnæus leucostoma* : HARTMAN, *Neue Alpina*, i, p. 248.
1822. } *Lymnæa leucostoma* : LAMARCK, *Hist. Anim. s. Vert.*,  
Apr. } vi, pt. 2, p. 162.
1822. } *Limnæa elongata* : SOWERBY, *Genera*, no. 7, "Limnæa,"  
June. } [p. 3], f. 6.
1823. *Helix peregrina* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.

1827. *Limnæa elongatus*, BROWN'S MS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xlii, f. 1 & 2.
1827. *Limnæa fossaria*, var. : BROWN, *o. c.*, pl. xlii, f. 3 & 5.
1828. *Limnæa octona* : FLEMING, *Hist. Brit. Anim.*, p. 274.  
[Non Fleming, 1813?.]
1828. *Limnæus filograna*, Ziegl. : MENKE, *Synop. Moll.*, p. 21.
1830. *Limnæus elongatus*, Drap. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 376.
1830. *Limnæus delicatus*, Zgl. : MENKE, *Synop. Moll.*, ed. 2, p. 38.
1831. *Limnæus elongatus*, Drap. : TURTON, *Manual*, p. 122, f. 106.
1831. *Stagnicola octanfracta* : LEACH, in Turton's *Manual*, p. 122, in synonym.
1831. *Limnæa leucostoma*, Poiret : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 89.
1837. *Limnæa (Omphiscola) glabra* (O. Müll.), B. : BECK, *Index Moll.*, p. 110.
1840. } *Limnæus (Stagnicola) glaber*, Müller : GRAY, in Turton's  
Apr. } *Manual*, new ed., p. 242, pl. ix, f. 106.
1840. } *Limnæa (Leptolimnæa) elongata*, Sow. : SWAINSON,  
May. } *Treatise Malacol.*, p. 338.
- Post } *Lymnæa elongata*, Drapernaud : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 29, pl. xv, f. 1-3 & 5.
1840. } *Lymnæa elongata*, Drapernaud : BROWN, *Illust. L. &*  
1840. } *F.-W. Conch. Brit.*, p. 10, pl. iii, f. 1-4.
1852. } *Stagnicola octanfracta*, Mont. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 102.
1852. } *Limnæus glaber*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
July. } iv. p. 178, pl. cxxiv, f. 1.
1854. *Limnæa variabilis*, Millet : MILLET, *Ann. Soc. Linn. Maine & Loire*, i, p. 299.
1856. *Limnæa (Lymnæus) glabra*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 478, pl. xxxiv, f. 36 & 37.
1857. *Limnæus (Stagnicola) glaber*, Müller : GRAY, in Turton's *Manual*, new ed., p. 211, pl. ix, f. 106.
1857. *Limnæus subulatus*, Kickx : GRAY, *o. c.*, p. 211, in synonym.  
[Non Kickx.]
1862. *Limnæa glabra*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 117 ;  
v, pl. vii, f. 8.
1863. *Limnæa glabra*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 165, figs.
1875. *Limnæus (Leptolimnæus) glaber*, Müll. : SANDBERGER, *Land- & Süßw.-Conch. Vorwelt*, p. 787.
1877. *Limnæa (Limnophysa) glabra*, Müller : CLESSIN, *Deutsch. Excurs. Moll. Fauna*, p. 381, f. 236.
1881. *Limnæa (Glabriana) glabra*, Dupuy : SERVAIN, *Hist. Malac. Lac Balaton*, p. 63.



1885. *Limnæa* (*Leptolimnæa*) *glabra*, Müll. : WESTERLUND, *Fauna Palæarct. Region*, v, p. 49.

[GERMAIN (*Moll. France*, ii, pp. 242-3) cites under *Leptolimnæa* as synonyms of the type, or of forms here considered identical, the following, which are also given by Locard :—*Limnæa lavedanica*, Bourg. ; *L. spelæa*, Cuénot ; *L. cantalica*, Bourg. ; *L. Oberthuri*, Ancy ; *L. gingivata*, Goupil, though this is more probably a var. of *L. truncatula* ; *L. Gassiesi*, Locard ; *L. condatina*, Ancy ; and *L. velaviana*, Bourg. in Locard.]

First recorded as British in 1777, by T. Pennant, as *Helix octona* ? Linn. (*See ref. above.*)

British Distribution in Time : Pleistocene to Recent.

### 8. *Limnæa* (*Cyclolimnæa*) *burnetti* (Alder).

Etym. :—Named in honour of its discoverer, Robert Burnett of Newcastle-on-Tyne.

1848. *Limnæa Burnetti* : ALDER, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. ii, p. 396, pl. xi, 3. figs.  
 1852. *Limnæus burnetti*, Alder : FORBES & HANLEY, *Brit. Moll.*, iv, p. 172, pl. cxxiii, f. 8 & 9.  
 1855. *Limnæa* (*Neritostoma*) *Burnetti*, Alder : H. & A. ADAMS, *Genera Moll.*, ii, p. 253.  
 1857. *Limnæus pereger*, var. 5 : GRAY, in Turton's *Manual*, new ed., p. 203.  
 1862. *Limnæa peregra*, var. 1 *Burnetti* : JEFFREYS, *Brit. Conch.*, i, p. 105.  
 1862. *Limnæa limosa* [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 157.  
 1881. *Limnæa* (*Gulnaria*) *lagotis*, Schrank, var. *Burnetti*, Alder : KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 118.  
 1885. *Limnæa* (*Gulnaria*) *burnetti*, Alder : WESTERLUND, *Fauna Palæarct. Region*, v, p. 40.

First recorded as British in 1848, by J. Alder. (*See ref. above.*)

British Distribution in Time : Recent.

### 9. *Limnæa* (*Cyclolimnæa*) *involuta* (Harvey MS.) Thompson.

Etym. :—Lat. *involutus*, rolled upon itself.

1837. *Limneus involutus* : THOMPSON, *Trans. Linn. Soc.*, xvii, p. 559. [*Nom. nud.*]  
 1837, } *Limneus involutus*, Thompson MS. : ALDER, *Mag. Zool.*  
 Aug. } *Bot.*, ii, p. 115. [*Nom. nud.*]

1837. *Amphipeplea glutinosa*, b. *involuta*, Thompson : BECK, *Index Moll.*, p. 116.
- 1840, { *Limnæus involutus*, } Harvey MS. : THOMPSON, *Ann.*  
Mar. { *Amphipeplea involuta*, } & *Mag. Nat. Hist.*, v, p. 22,  
pl. i.
- 1840, } *Amphipeplea involuta*, Harvey : GRAY, in Turton's  
Apr. } *Manual*, new ed., p. 245, pl. xii, f. 147.
- Post }  
Sept. } *Limnæa involuta*, Harvey : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 29, pl. xviii, f. 5.
1845. *Limnæa involuta*, Harvey : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 13, pl. ii, f. 24 & 25.
1852. *Limnæus involutus*, Harvey : FORBES & HANLEY, *Brit. Moll.*, iv, p. 184, pl. cxxii, f. 11; cxxxii, f. 12.
1857. *Amphipeplea involuta*, Harvey : GRAY, in Turton's *Manual*, new ed., p. 214, pl. xii, f. 147.
1862. *Limnæa involuta*, Thompson : JEFFREYS, *Brit. Conch.*, i, p. 103; v, pl. vii, f. 2.
1863. *Limnæa involuta*, Harvey : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 168, figs.
1885. *Limnæa (Gulnaria) involuta*, Harv. : WESTERLUND, *Fauna Paliæret. Region*, v, p. 40.
1905. *Limnæa (Cyclolimnæa) involuta*, Harvey : DALL, *Harriman Alaska Exped.*, xiii, p. 64.

First recorded as British in 1837, by W. Thompson.  
(See ref. above.)

British Distribution in Time : Recent.

#### 10. *Limnæa (Cyclolimnæa) prætenuis*, Bowell.

Etym. :—Lat. *prætenuis*, very thin.

1908. *Limnæa prætenuis*, n. sp. : BOWELL, *Irish Naturalist*, xvii, p. 46, pl. i, B. and figs.

First recorded as British in 1907, by A. W. Stelfox & J. N. Milne (*Irish Nat.*, xvi, p. 287, pl. xxxvi), as *Limnæa sp.?*

British Distribution in Time : Recent.

Genus : 2. **MYXAS** (Leach MS.), J. Sowerby.

Etym. :—Gr. *μύξα*, mucus, slime of snails.

Type :—*Buccinum glutinosum*, Müller.

(*Buccinum*, *Bulimus*, *Helix*, vett. auctt.)

1819. *Myxas* : LEACH, *Moll. Brit. Synop.* (proofs), p. 108.

1822. *Myxas*, Leach's MS. : SOWERBY, *Genera Shells*, no. 7, *Limneu* [p. 3], f. 5.



1823. *Amphipeplea*: NILSSON, *Hist. Moll. Svec.*, 1822 [*i.e.* 1823], p. 58.  
 1840. *Lutea*, BROWN: GRAY, in Turton's *Manual*, new ed., p. 243. [*Non* BROWN.]

1. *Myxas glutinosa* (Müller).

Etym.:—Lat. *glutinosus*, viscous.

1774. *Buccinum glutinosum*: MÜLLER, *Verm. Hist.*, ii, p. 129.  
 1789. *Bulimus glutinosus*, nob.: BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 306.  
 1791. *Helix glutinosa*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3659.  
 1803. *Helix glutinosa*, Gmel.: MONTAGU, *Test. Brit.*, p. 379, pl. xvi, f. 5.  
 1805. *Limneus glutinosus*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 50, pl. xvi, f. 13 & 14.  
 1807. *Helix glutinosa*, Müller: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 222.  
 1817. *Helix glutinosa*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 970.  
 1819. *Myxas Mülleri*: LEACH, *Moll. Brit. Synop.* (proofs), p. 149.  
 1822. *Myxas glutinosa*, Mont.: SOWERBY, *Genera Shells*, no. 7, "Limnea" [p. 3], f. 5.  
 1823. *Amphipeplea glutinosa* (Müll.): NILSSON, *Hist. Moll. Svec.*, 1822, [*i.e.* 1823], p. 58.  
 1823. *Helix glutinosa*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.  
 1827. *Limnæa glutinosa*, BROWN'S MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xlii, f. 27 & 28.  
 1830. *Limneus glutinosus*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 371.  
 1831. *Limneus glutinosus*, Drap.: TURTON, *Manual*, p. 120, f. 103.  
 1831. *Myxas Mulleri*: LEACH, in Turton's *Manual*, p. 120, in synon.  
 1840. } *Amphipeplea glutinosa*, Müller: GRAY, in Turton's  
 Apr. } *Manual*, new ed., p. 243, pl. ix, f. 103.  
 [Gray's statement that Brown referred this species to his *Lutea* was an error.]  
 Post }  
 Sept. } *Amphipeplea glutinosa*, Nilson: BROWN, *Illust. Conch.*  
 1840. } *Brit.*, ed. 2, p. 30, pl. xv, f. 27 & 28.  
 1845. *Amphipeplea glutinosa*, Nilson: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 13, pl. iii, f. 7 & 8.  
 1852. }  
 Feb. } *Myxas Mülleri*: LEACH, *Moll. Brit. Synop.*, p. 108.  
 1852. } *Limnæus glutinosus*, Müller: FORBES & HANLEY, *Brit.*  
 July. } *Moll.*, iv, p. 182, pl. cxxiv, f. 6 & 7.

1856. *Limnæa* (*Amphipeplea*) *glutinosa*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 461, pl. xxxiii, f. 16-20.
1857. *Amphipeplea glutinosa*, Müller : GRAY, in Turton's *Manual*, new ed., p. 212, pl. ix, f. 103.
1862. *Limnæa glutinosa*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 102; v, pl. vii, f. 1.
1863. *Limnæa glutinosa*, Müller : REEVE, *L. & F.-W. Brit. Is.*, p. 167, figs.

[GERMAIN (*Moll. France*, ii, p. 245) cites as synonyms :—*Amphipeplea Mabilleyi*, Bourg.; and *A. Dupuyi*, Bourg.]

First recorded as British in 1803, by G. Montagu, as *Helix glutinosa*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

Fam. : PLANORBIDÆ.

Genus : 1. PLANORBIS, Geoffroy.<sup>1</sup>

Etym. :—Lat. *planus* + *orbis*, a flat circle.

Type by tautonomy :—*Helix planorbis*, Linné.

(*Helix*, vett. auctt.)

1767. *Planorbis* : GEOFFROY, *Traité Coq. Paris*, p. 12.
1772. *Orbis* : DEZALLIER D'ARGENVILLE, *Conchyliologie*, pt. 1, p. 281. [A non-binominal work, with no species cited. In pt. 2, on p. 56, the name appears as *Planorbis*, in which form it also occurred in the French edition of 1757.]
1777. *Planorbis* [pars] : MÜLLER, *Verm. Hist.*, ii, p. 152.
1806. *Planorbarius* : FRORIEP, in Duméril's *Analyt. Zool.*, p. 165.
1820. *Anisus* [pars] : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91.
1847. *Coretus*, Adns. : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 180. [Adanson was a pre-Linnean writer.]

Sub-gen. : *Planorbis*, s.s.

1767. *Planorbis* : GEOFFROY, *Traité Coq. Paris*, p. 12.
1833. *Anisus* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 111. [Non Dejean, 1821 (Coleopt).]
1850. *Tropidiscus* [pars] : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 76.

<sup>1</sup> For Note concerning the type of this genus and the correct subgenera for the British species, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, 1924, p. 9.

1855. *Trophidiscus* [? corr.] Stein : H. & A. ADAMS, *Genera Moll.*, ii, p. 263, in synonym.  
 1855. *Omalodiscus* [pars] : BENSON, *Journ. Asiatic Soc. Beng.*, xxiv, p. 127.  
 1856. *Gyrorbis* [pars] : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 428. [Misattributed to Agassiz in Charpentier, an error in which he is followed by Westerlund, 1885.] [Non Fitzinger, 1833.]  
 1877. *Tropodiscus* : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 398.

Sub-gen. : **Planorbarius**, Froriep.

Etym. :—Lat. corrupt. of *planorbicarius*, pertaining to *Planorbis*.

Type :—*Helix cornea*, Linné.

1806. *Planorbarius* : FRORIEP, in Duméril, *Analyt. Zool.*, p. 165.  
 1840. *Planorbis* : SWAINSON, *Treat. Malac.*, p. 337.  
 1847. *Corctus*, Adams. : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 180.  
 1850. *Spirodiscus* [pars] : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 73.  
 1880. *Helisoma* : SANDBERGER, *Palaeontograph.*, xxvii (N.F. vii), p. 100. [Non Swainson, 1840.]

Sub-gen. : **Gyraulus** (Agassiz MS.), Charpentier.

Etym. :—Gr. γῦρος, a circle + αἰλός, a tube.

Type :—*Planorbis albus*, Müller.

1827. *Planaria* [pars] : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. li, f. 48 & 49. [Non Müller, 1774.]  
 1837. *Gyraulus*, Ag. (Msc.) : CHARPENTIER, *Neue Denkschr. Ally. Schweiz. Gesell.*, i, [no. 2], p. 21.  
 1842. } *Trochlca* : HALDEMAN, *Amer. Journ. Sci.*, xlii,  
 Jan. } p. 216.  
 1842. *Armiger* : HARTMANN, *Erd- & Süsw.-Gasterop.*, p. 172 (also p. 219 and "Syst. Uebersicht," 1840).  
 1850. *Nautilina* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 80.  
 1855. *Omalodiscus* [pars] : BENSON, *Journ. Asiat. Soc. Beng.*, xxiv, p. 127.  
 1903. *Spiniformis*, subg. 5 of *Planorbis* : GERMAIN, *Bull. Soc. Sci. Ouest France*, Sér. II, tom. iii, p. 204.  
 1905. *Torquis*, sect. of *Gyraulus* : DALL, *Harriman Alaska Exped.*, xiii, p. 83 (defined, p. 86).

Sub-gen: **Spiralina** (Hartmann MS.), Martens.

Etym.:—Lat. dimin. of *spira* (Gr. σπῆρα), a coil.

Type:—*Helix vortex*, Linnæus. (Selected by W. A. Lindholm in 1922.)

1837. *Planorbis*, Ag. (Msc.) [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 21.
1840. } *Spirorbis*: SWAINSON, *Treat. Malac.*, p. 337. [Non  
May. } Daudin, 1800 (Vermes).]
1840. *Spiralina*: HARTMANN, *Erd- & Süsw.-Gasterop.*,  
"Syst. Uebersicht." [Nom. nud.] [Teste  
Von Martens, *Biol. Centr.-Amer.*, "Land &  
Freshwater Moll.," p. 395, note.]
1847. *Anisus*, Fitz.: GRAY, *Proc. Zool. Soc. Lond.*, 1847,  
p. 180. [Non Fitzinger, nec Studer.]
1850. *Spirodiscus* [pars]: STEIN, *Lebend. Schneck. &  
Musch. Berlins*, p. 73.
1850. *Tropidiscus* [pars]: STEIN, *o. c.*, p. 76.
1855. *Omalodiscus* [pars]: BENSON, *Journ. Asiat. Soc.  
Benj.*, xxiv, p. 127.
1856. *Gyrorbis* [pars]: MOQUIN-TANDON, *Hist. Moll.  
France*, ii, p. 428. [Misattributed to Agassiz  
in Charpentier, an error in which he was  
followed by Westerlund, 1885.] [Non Fitz-  
zinger, 1833.]
1864. *Gyrorbis* (Moq. p. p.): MÖRCH, *Vidensk. Meddel.  
Naturk. Foren. Kjöbenhavn*, 1863 (1864),  
p. 313.
1897. *Diplodiscus*: WESTERLUND, *Acta Soc. Fauna &  
Flora Fennica*, xiii, p. 115. [Non Diesing,  
1850 (Vermes).]
1899. *Spiralina*, Hartmann: MARTENS, *Biol. Cent.-Amer.*,  
"Land & Freshwater Moll.," p. 395.
1909. *Wucstia*: HONIGMANN, *Zeitschr. f. Naturw.*, lxxxix,  
p. 296.

Sub-gen: **Bathyomphalus** (Agassiz MS.), Charpentier.

Etym.:—Gr. βαθύς + ομφαλός, deeply umbilicated.

Type:—*Helix contorta*, Linné.

1837. *Bathyomphalus*, Ag. (Msc.): CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i, [no. 2], p. 20.
1847. *Polygyrus*, Beck: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 181. [Beck did not use this name: he placed the species in his section *Polygyrini* of *Planorbis*.]
1850. *Discoidina*: STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 82.

Sub-gen. : **Hippeutis** (Agassiz MS.), Charpentier.

Etym. :—Gr. ἵππευτής, a rider, in allusion to the overlapping (over-riding) of the successive whorls.

Type :—*Helix complanatus*, Linné.

1837. *Hippeutis*, Ag. (Msc.) : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 22.

1850. *Hippeutes* : GRAY, *Fig. Moll. Anim.*, iv, Syst. arrang., p. 119. [Err. typ.]

1855. *Helicorbis* : BENSON, *Journ. Asiat. Soc. Beng.*, xxiv, p. 126.

1880. *Drepanostrema* : FISCHER & CROSSE, *Miss. Scient. Mexique, Recherch. Zool.*, Sér. VII, ii, p. 59.

1. **Planorbis** (s.s.) **planorbis** (Linné).

Etym. :—Lat. *planus* + *orbis*, a flat circle.

1758. *Helix planorbis* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 769, no. 578.

1767. *Helix planorbis* : LINNÆUS, *o. c.*, ed. 12, p. 1242, no. 662.

1767. *Planorbis planorbis*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 91.

1774. *Planorbis umbilicatus* : MÜLLER, *Verm. Hist.*, ii, p. 160.

1777. *Helix planorbis*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 133; 4to, p. 115, pl. lxxxiii, f. 123.

1778. *Helix limbata* : DACOSTA, *Test. Brit.*, p. 63, pl. iv, f. 8 & viii, f. 8.

1789. *Planorbis complanatus*, Müll. ? : STUDER, in COXE's *Trav. Switzerld.*, iii, p. 391.

1791. *Helix complanata* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3617.

1798. *Planorbis lapicida* : BOLTEN, *Mus. Bolt.*, ii, p. 73, no. 931.

1799. *Helix planorbis* : PULTENEY, *Cat. Dorset.*, p. 46.

1801, ) *Planorbis acutus* : POIRET, *Coq. Aisne*, p. 91.  
Apr. }

1801, ) *Planorbis carinatus*, b. : DRAPARNAUD, *Tabl. Moll. France*, p. 45.  
July. }

1803. *Helix complanata*, Lin. : MONTAGU, *Test. Brit.*, p. 450; Suppt. pl. xxv, f. 4.

1805. *Planorbis marginatus* : DRAPARNAUD, *Hist. Moll. France*, p. 45, pl. ii, f. 11 & 12.

1807. *Helix planorbis*, Linn. [pars] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 188, pl. v, f. 13, & f. 14 as *H. planata*.

1813. *Helix planorbis* : RACKETT, in Pulteney's *Cat. Dorset.*, ed. 2, p. 52, pl. xiv, f. 8 & xx, f. 10.

1817. *Helix complanata*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 897.

1818. *Helix cochlea* : BROWN, *Mem. Wernerian Nat. Hist. Soc.*, ii, p. 528, pl. xxiv, f. 10. [A scalariform monstrosity].

1819. *Planorbis marginatus*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 158.
1819. *Planorbis Sheppardi* : LEACH, *o. c.*, p. 159.
1819. *Helix rhombea* : TURTON, *Conch. Dict.*, p. 47.
1819. *Helix terebra* : TURTON, *o. c.*, p. 62. [*Nom. nov.* for BROWN'S *Helix cochlea*.]
1820. *Planorbis carinatus* : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 92. (In reprint, "Syst. Verzeichn.," p. 25).
1820. *Planorbis complanatus* : STUDER, *t. c.* (In reprint, "Syst. Verzeichn.," p. 25.)
1821. *Planorbis marginatus*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 75, pl. iii. f. 1 & 2.
1823. *Helix complanatus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1823. *Helix Draparnaudi* : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 158. [*Fide* Gray, in Turton, *Manual*, 1840, p. 265.]
- ?1826. *Planorbis marginatus*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 97.
1827. *Planorbis marginatus*, Drap. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 39-41.
1830. *Planorbis umbilicatus*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 384.
1831. *Planorbis marginatus*, Drap. : TURTON, *Manual*, p. 107, f. 88.
1831. *Planorbis complanatus*, Linn. : TURTON, *o. c.*, p. 108, f. 87 [not 89 as cited.]
1831. *Planorbis rhombeus* : TURTON, *o. c.*, p. 108, f. 90.
1831. *Planorbis Sheppardi* : LEACH, in Turton's *Manual*, p. 108 in synon.
1833. *Anisus marginatus*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 111.
1837. *Planorbis intermedius*, mihi : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 21.
1840. } *Planorbis marginatus*, Drap. : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 265, pl. viii, f. 87, 88 & 90.
- Post }  
Sept. } *Planorbis marginatus*, Draparnaud : BROWN, *Illust.*  
1840. } *Conch. Brit.*, ed. 2, p. 32, pl. xiv, f. 39-41.
1845. *Planorbis marginatus*, Draparnaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 20, pl. iii, f. 26-28.
1850. *Planorbis (Tropidiscus) complanatus*, L. : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 76.
1852. } *Planorbis marginatus*, Drap. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 114.
1852. } *Planorbis Sheppardi* : LEACH, *o. c.*, p. 115.
1852. } *Planorbis marginatus*, Draparnaud : FORBES & HANLEY,  
Apr. } *Brit. Mol.*, iv, p. 155, pl. cxxvii, f. 1-3.



1855. *Planorbis* Linnéi, mihi [pars]: MALM, *Götheb. K. Vet. & Vitt. Samhälles Handl.*, N.F. iii, p. 137.
1855. } *Planorbis* (*Anisus*) *marginatus*, Drap.: H. & A. ADAMS,  
Nov. } *Genera Moll.*, ii, p. 263.
1856. *Planorbis* (*Gyrorbis*) *complanatus*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 428, pl. xxx, f. 18-28.
1857. *Planorbis* (*Gyrorbis*) *complanatus*, Linn.: GRAY, in Turton's *Manual*, new ed., p. 240, pl. viii, f. 87, 88 & 90.
1862. *Planorbis complanatus*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 91; v, pl. vi, f. 2.
1863. *Planorbis complanatus*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 143, figs.
1873. *Planorbis* (*Tropidiscus*) *umbilicatus*, Müll.: WESTERLUND, *Fauna Moll. Svec.*, p. 374.
1875. *Planorbis* (*Anisus*) *umbilicatus*, Müller: SANDBERGER, *Land- & Süßw.-Conch. Vorwelt*, p. 779, pl. xxxv, f. 8 [as *P. complanatus*].
1877. *Planorbis* (*Tropidiscus*) [sic] *marginatus*, Draparnaud: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 398, f. 251.
1902. *Planorbis* (*Tropidiscus*) *planorbis*, Lin.: WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 120.
1909. *Planorbis* (*Gyrorbis*) *umbilicatus*, Müller: GERMAIN, *Bull. Soc. Sci. Nat. Elbeuf*, xxvii, p. 151.

[GERMAIN (*Moll. France*, ii, p. 253) gives as synonyms:—*Planorbis submarginatus*, Crist. & Jan; and *P. salonensis*, Florence.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 24).

British Distribution in Time: Cromerian to Recent.

[The Pliocene *P. præcursor*, Kennard & Woodward, 1911, had previously been referred to *P. marginatus*, Drap.]

## 2. *Planorbis* (s.s.) *carinatus*, Müller.

Etym.:—Lat. *carinatus*, keeled.

1774. *Planorbis carinatus*: MÜLLER, *Verm. Hist.*, ii, p. 157.
1791. *Helix planorbis*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3617.
1801. } *Planorbis carinatus*, a: DRAPARNAUD, *Tabl. Moll.*  
July. } *France*, p. 45.
1803. *Helix carinata* (Müller): MONTAGU, *Test. Brit.*, p. 451, pl. xxv, f. 1.
1805. *Planorbis carinatus*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 46, pl. ii, f. 13 & 14.
1807. *Helix planata*: TURTON, *Brit. Fauna*, p. 187.
1807. *Helix planorbis*, Linn. [pars]: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 188.

1813. *Helix planata* : RACKETT, in Pulteney, *Cat. Dorsct.*, ed. 2, p. 52, pl. xx, f. 18.
1817. *Helix planorbis*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 896.
1819. *Planorbis carinatus*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 157.
1820. *Helix umbilicatus*, mihi : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 92. (In reprint, "Syst. Verzeichn.," p. 25.)
1821. *Planorbis marginatus*, var.  $\gamma$  : HARTMANN, *Neue Alpina*, i, p. 254.
1821. *Planorbis carinatus*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 76, pl. iv, f. 5 & 6.
1823. *Helix planorbis* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Planorbis carinatus*, Müll. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 97.
1827. *Planorbis carinatus*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 35-37.
1830. *Planorbis carinatus*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 384.
1830. *Planorbis lutescens*, Lam. : JEFFREYS, *t. c.*, p. 385.
1831. *Planorbis carinatus*, Drap. : TURTON, *Manual*, p. 106, f. 89 [not 87 as cited.]
1831. *Planorbis planorbis* : TURTON, *o. c.*, p. 110, f. 92.
1833. *Planorbis disciformis* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 521. [*Nom. nov.* for his *P. lutescens* of 1830.]
1833. *Anisus carinatus*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 111.
1840. } *Planorbis carinatus*, Müller : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 262, pl. viii, f. 89 & 92.
- Post }  
Sept. } *Planorbis carinatus*, Müller : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 32, pl. xiv, f. 35-37.
1845. *Planorbis carinatus*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 20, pl. iii, f. 34-36.
1850. *Planorbis (Tropidiscus) carinatus* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 77.
1852. } *Planorbis carinatus*, Müll. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 114.
1852. } *Planorbis carinatus*, Müller : FORBES & HANLEY, *Brit.*  
July. } *Moll.*, iv, p. 153, pl. cxxvii, f. 4 & 5.
1855. *Planorbis Linnéi*, mihi [pars] : MALM, *Götheb. K. Vet. & Vitt. Samhälles Handl.*, N.F. iii, p. 137.
1855. } *Planorbis (Anisus) carinatus*, Müll. : H. & A. ADAMS,  
Nov. } *Genera Moll.*, ii, p. 263.
1856. *Planorbis (Gyrorbis) carinatus*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 431, pl. xxx, f. 29-33.
1857. *Planorbis (Gyrorbis) carinatus*, Müller : GRAY, in Turton's *Manual*, new ed., p. 237, pl. viii, f. 89 & 92.



1862. *Planorbis carinatus*, Müller : JEFFREYS, *Brit. Conch*, i, p. 98; v, pl. vi, f. 1.  
 1863. *Planorbis carinatus*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 142, figs.  
 1877. *Planorbis (Tropodiscus) [sic] carinatus*, Müller : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 400.

[GERMAIN (*Moll. France*, ii, p. 251) gives as synonyms:—*Planorbis pervius*, Bourg.; and *P. gallicus*, Bourg.]

First recorded as British in 1803, by G. Montagu, as *Helix carinata*. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

### 3. *Planorbis (Planorbarius) corneus* (Linné).

Etym. :—Lat. *corneus*, horny.

1758. *Helix cornea* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 770, no. 587.  
 1767. *Helix cornea* : LINNÆUS, *o. c.*, ed. 12, p. 1234, no. 671.  
 1767. *Planorbis cornea [sic]*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 85.  
 1774. *Planorbis purpura* : MÜLLER, *Verm. Hist.*, ii, p. 154.  
 1774. *Planorbis similis* : MÜLLER, *o. c.*, p. 166.  
 1777. *Helix nana* : PENNANT, *Brit. Zool.*, ed. 4, 8vo, p. 133; 4to, p. 116, pl. lxxxiii, f. 125.  
 1777. *Helix cornea*, Linn. : PENNANT, *t. c.*, 8vo, p. 134; 4to, p. 116, pl. lxxxiii, f. 126.  
 1778. *Helix cornu arietis* : DACOSTA, *Test. Brit.*, p. 60, pl. iv, f. 13. [Non Linnæus.]  
 1791. *Helix cornea* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3623, no. 35.  
 1791. *Helix similis* : GMELIN, *o. c.*, ed. 13, i, pt. 6, p. 3625, no. 40.  
 1799. *Helix cornea* : PULTENEY, *Cat. Dorset.*, p. 47.  
 1801, }  
 Apr. } *Planorbis corneus* (Linn.) : POIRET, *Coq. Aisne*, p. 87.  
 1801, }  
 July. } *Planorbis corneus* (Linn.) : DRAPARNAUD, *Tabl. Moll. France*, p. 43.  
 1803. *Helix cornea*, Lin. : MONTAGU, *Test. Brit.*, p. 448.  
 1805. *Planorbis corneus*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 43, pl. i, f. 42-44.  
 1806. *Planorbarius corneus* : FRORIEP, in Dumeril's *Analyt. Zool.*, p. 165.  
 1807. *Helix cornea*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 190.  
 1813. *Helix cornea* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 52, pl. xx, f. 13.  
 1817. *Helix cornea*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 906.  
 1817. *Helix similis*, Gmel. : DILLWYN, *t. c.*, p. 907.

1819. *Planorbis corneus*, Linn. : LEACH, *Moll. Brit. Synop.* (proofs), p. 155.
1821. *Planorbis corneus*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 77, pl. iv, f. 3 & 4.
1823. *Helix corneus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Planorbis corneus*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 31-33.
1830. *Planorbis corneus*, Linn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 383.
1831. *Planorbis corneus*, Linn. : TURTON, *Manual*, p. 112, f. 95.
1839. *Planorbis Metidgensis*, nov. sp. : FORBES, *Ann. Nat. Hist.*, ii, p. 254, pl. xii, f. 5.
1840. } *Planorbis corneus*, Linn. : GRAY, in *Turton's Manual*,  
Apr. } new ed., p. 258, pl. viii, f. 95.
- Post }  
Sept. } *Planorbis corneus*, Drapernaud : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 31, pl. xiv, f. 31-33.
1845. *Planorbis corneus*, Drapernaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 17, pl. iii, f. 21-23; xxiv, f. 26.
- ?1847. *Helix Biblis*, Ch. : NARDO, *Sinon. Species Chiegreghini*, col. 85.
1847. } *Coretus corneus* : GRAY, *Proc. Zool. Soc. Lond.*, 1847,  
Nov. } p. 180.
1850. *Planorbis (Spirodiscus) corneus* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 73.
1851. *Planorbis similis*, Bielz : M. BIELZ, *Verhandl. Siebenbürg. Ver. Naturw.*, ii, p. 63.
1852. } *Planorbis corneus*, Linn. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 112.
1852. } *Planorbis corneus*, Linnæus : FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 147, pl. cxxvi, f. 4 & 5.
1856. *Planorbis (Coretus) corneus*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 445, pl. xxxi, f. 32-38.
1857. *Planorbis (Coretus) corneus*, Linn. : GRAY, in *Turton's Manual*, new ed., p. 233, pl. viii, f. 95.
1859. *Planorbis Etruscus*, Ziegl. MS. : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. xi, p. 514. (*Aménit. Malac.*, ii, p. 127, pl. xviii, f. 1.)
1859. *Planorbis clophilus*, : BOURGUIGNAT, *t. c.*, p. 515, pl. xix, f. 1-3. (*t. c.*, p. 128, pl. xvi, f. 1-3.)
1859. *Planorbis Nordenskioldi* : BOURGUIGNAT, *t. c.*, p. 516. (*t. c.*, p. 128.)
1859. *Planorbis anthracius* : BOURGUIGNAT, *t. c.*, p. 516; pl. xx, f. 1-3. (*t. c.*, p. 130, pl. xvii, f. 1-3.)
1859. *Planorbis Banaticus*, Lang MSS. : BOURGUIGNAT, *t. c.*, p. 517, pl. xix, f. 10-12. (*t. c.*, p. 130, pl. xvi, f. 10-12.)

1859. *Planorbis adelosius* : BOURGUIGNAT, *t. c.*, p. 518, pl. xix, f. 13-15. (*t. c.*, p. 131, pl. xvi, f. 13-15.)
1859. *Planorbis aclopus* : BOURGUIGNAT, *t. c.*, p. 521, pl. xx, f. 4-6. (*t. c.*, p. 135, pl. xvii, f. 4-6.)
1862. *Planorbis corneus*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 93; v, pl. vi, f. 3.
1863. *Planorbis corneus*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 138, figs.
1880. *Planorbis (Helisoma) clathratus*, Sandb. : SANDBERGER, *Palæontograph.*, xxvii (N.F. vii), p. 100, pl. xii, f. 8-8c.

[GERMAIN (*Moll. France*, ii, p. 251) gives as synonyms :—*Planorbis Taciti*, Letourneux; *P. helophilus*, Bourg.; and *P. Mabilei*, Bourg. For a considerable list of names that have been applied to varieties of this species, See Germain in *Rec. Indian Mus.*, xxi, 1921, pp. 10-12.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 23).

British Distribution in Time : Pliocene to Recent.

#### 4. *Planorbis (Gyraulus) albus*, Müller.

Etym. :—Lat. *albus*, white.

1774. *Planorbis albus* : MÜLLER, *Verm. Hist.*, ii, p. 164.
1791. *Helix alba* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3625.
- 1801, } *Planorbis villosus* : POIRET, *Coq. Aisne*, p. 95.  
Apr. }  
1801, } *Planorbis albus*, Müll. : DRAPARNAUD, *Tabl. Moll. France*,  
July. } p. 44.  
1801, } *Planorbis hispidus*, nobis : VALLOT, *Exer. Hist. Nat.*,  
Aug. } p. 5. [*Teste Moquin-Tandon.*]
1803. *Helix alba*, Gmel. : MONTAGU, *Test. Brit.*, p. 459, pl. xxv, f. 7.
1805. *Planorbis hispidus* : DRAPARNAUD, *Hist. Moll. France*, p. 43, pl. i, f. 45-47.
1807. *Helix alba* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 192.
1813. *Helix alba* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xix, f. 18.
1817. *Helix alba*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 909.
1819. *Planorbis albus*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 156.
1821. *Planorbis hispidus*, var.  $\gamma$  : HARTMANN, *Neue Alpina*, i, p. 255.
1821. *Planorbis albus*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 80, pl. iv, f. 9 & 10.
1823. *Helix alba* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.

- ?1826. *Planorbis reticulatus*: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 98.
1827. *Planorbis albus*, BROWN'S MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 52 & 53.
1827. *Planaria alba*: BROWN, *o. c.*, pl. li, f. 48 & 49.
1830. *Planorbis Draparnaldi*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 386.
1830. *Planorbis Müll.*: JEFFREYS, *t. c.*, p. 387.
1830. *Planorbis glaber*: JEFFREYS, *t. c.*, p. 387.<sup>1</sup>
1831. *Planorbis albus*, MONT.: TURTON, *Manual*, p. 114, f. 97.
1833. *Planorbis fuscus*, ZIEGLER: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 112.
1837. *Planorbis (Gyraulus) hispidus*, DRAP.: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 21.
- 1840, } *Planorbis hirsutus*: GOULD: *Amer. Journ. Sci.*, xxxviii,  
Jan. } p. 196. (*Invert. Mass.*, 1841, p. 206, f. 135.)
- 1840, } *Planorbis albus*, MÜLLER: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 259, pl. viii, f. 97.
- Post } *Planorbis albus*, MÜLLER: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 31, pl. xiv, f. 52 & 53.
1840. } *Planorbis albus*, MÜLLER: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 31, pl. xiv, f. 52 & 53.
1841. *Gyraulus hispidus*: HARTMAN, *Erd- & Süsw.-Gasterop.*, p. 89, pl. xxv.
1842. *Trochlea alba*, BROWN: HALDEMAN, *Amer. Journ. Sci.*, xlii, p. 216.
1845. *Planorbis albus*, MÜLLER: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 18, pl. iii, f. 30 & 31.
1850. *Planorbis (Nautilina) albus*: STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 80.
- 1852, } *Planorbis albus*, MÜLLER: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 113.
- 1852, } *Planorbis albus*, MÜLLER: FORBES & HANLEY, *Brit. Moll.*,  
Apr. } iv, p. 149, pl. cxxvi, f. 1 & 2.
1856. *Planorbis (Gyraulus) albus*, MÜLLER: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 440, pl. xxxi, f. 12-19.
1857. *Planorbis (Gyraulus) albus*, MÜLLER: GRAY, in Turton's *Manual*, new ed., p. 234, pl. viii, f. 97.
1862. *Planorbis albus*, MÜLLER: JEFFREYS, *Brit. Conch.*, i, p. 83; v, pl. v, f. 4.
1863. *Planorbis albus*, MÜLLER: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 139, figs.
1867. *Planorbis Paladilhi*: MOITESSIER, *Rev. & Mag. Zool.*, Sér. II, tom. xix, p. 424, pl. xxii, f. 7-14.
1873. *Planorbis (Gyraulus) draparnaldi*, JEFFREYS: WESTERLUND, *Fauna Moll. Svec.*, p. 393.

<sup>1</sup> For the history of this species of Jeffreys, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, 1924, p. 11.

- ?1903. *Planorbis Arnouldi*, Germain : GERMAIN, *Bull. Soc. Sci. Nat. Ouest France*, Sér. II, tom. iii, p. 191, pl. A, f. 13-15.
1913. *Planorbis (Gyraulus) Draparnaudi*, Jeffreys [emend.] : GERMAIN, *Moll. France*, ii, p. 257.

[GERMAIN (*Moll. France*, ii, p. 258) gives as synonyms :—*Planorbis pyrenaicus*, Bourg.; and *P. tricassinus*, Bourg.]

First recorded as British about 1702-11, by J. Petiver (*Gazoph.*, pl. xcii, f. 7).

British Distribution in Time : Cromerian to Recent.

### 5. *Planorbis (Gyraulus) lævis*, Alder.

Etym. :—Lat. *levis*, smooth.

- ?1801. *Planorbis spirorbis* (Linn.) : DRAPARNAUD, *Tabl. Moll. France*, p. 44. [Non Linné.]
- ?1826. *Planorbis spirorbis*, Mull. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 97. [Caziot says Risso's shells are poor specimens and might be *P. spirorbis*, or *P. albus*.]
1838. *Planorbis lævis* : ALDER, *Trans. Nat. Hist. Soc. Northumberland.*, ii, p. 337.
1839. *Planorbis lateralis* (Strickland) : MURCHISON, *Silurian System*, p. 555. [Nom nud.]
- 1840, } *Planorbis lævis*, Alder : GRAY, in Turton's *Manual*, new  
Apr. } ed. p. 261, pl. xii, f. 148.
- Post }  
Sept. } *Planorbis lævis*, Alder : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 31, pl. xiii, f. 7-9.
- ?1841. (*Planorbis*) *Gyraulus regularis* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 97, pl. xxviii.
1845. *Planorbis lævis*, Alder : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 18, pl. iii, f. 37 & 38.
- ?1848. *Planorbis Moquini* : REQUIEN, *Cat. Coq. Corse*, p. 50. [Fide Moquin-Tandon.]
1852. *Planorbis glaber*, Jeffreys : FORBES & HANLEY, *Brit. Moll.*, iv, p. 150, pl. cxxvi, f. 8 & 9 as *P. lævis*. [Non Jeffreys, 1830.]
1855. *Planorbis (Nautilina) glaber*, Jeff. : H. & A. ADAMS, *Genera Moll.*, ii, p. 264.
1856. *Planorbis (Gyraulus) lævis*, Alder : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 442, pl. xxxi, f. 20-23.
1857. *Planorbis (Gyraulus) glaber*, Jeffreys : GRAY, in Turton's *Manual*, new ed., p. 235, pl. xii, f. 148.
1858. *Planorbis lateralis*, Strickl. : JARDINE'S *Memoirs of H. E. Strickland*, pp. 96 & 98.

1862. *Planorbis glaber*, Jeffreys: JEFFREYS, *Brit. Conch.*, i, p. 85, v, pl. v, f. 5.  
 1863. *Planorbis glaber*, Jeffreys: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 140, figs.

First recorded as British in 1838, by J. Alder. (See ref. above.)

British Distribution in Time: Cromerian to Recent.

6. †*Planorbis (Gyraulus) arcticus* (Beck MS.), Möller.

Etym.:—Lat. *arcticus*, northern.

1838. *Planorbis articus*, B.: BECK, *Index Moll.*, p. 123. [*Nom. nud.*]  
 1842. *Planorbis arcticus*, Beck: MÖLLER, *Index Moll. Grönl.*, p. 5.  
 1855. *Planorbis (Nautilina) arcticus*, Beck: H. & A. ADAMS, *Genera Moll.*, ii, p. 263.  
 1857. *Planorbis (Nautilina) arcticus*, Bk. & Möll.: MÖRCH, in Rink, *Grönland*, ii, "Naturh. Bidr.," p. 76.  
 1885. *Planorbis (Gyraulus) arcticus*, Beck: WESTERLUND, *Fauna Paläarct. Region*, v, p. 77.  
 1905. *Planorbis (Torquis) arcticus*, Möller: DALL, *Harriman Alaska Exped.*, xiii, p. 96.

First recorded as British in 1903, by B. B. Woodward (*Journ. of Conch.*, x, pp. 355 & 363).

British Distribution in Time: Pleistocene.

7. *Planorbis (Gyraulus) acronicus*, Férussac.<sup>1</sup>

Etym.:—From Aconius lacus, the old name for Lake Ueberlingen, part of Lake Constance. (*Fide* Pomponius Mela.)

1805. *Planorbis spirorbis*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 45, pl. ii, f. 8-10. [From an inspection of the types. *Non* Linné, *neq* Müller.]  
 1807. *Planorbis acronicus*: FÉRUSSAC, *Essai méthod. Conchyl.*, p. 105.  
 1807. *Planorbis deformis*: FÉRUSSAC, *l. c.*  
 1821. *Planorbis hispidus*, var.  $\beta$ . *deformis* [Fér.]: HARTMANN, *Neue Alpina*, i, p. 255.  
 1837. *Planorbis deformis*, Lam.: ALDER, *Mag. Zool. & Bot.*, ii, p. 113. [*Non* Lamarck.]  
 ?1838. *Planorbis devians*, Porro: PORRO, *Malac. Prov. Comasca*, p. 84, pl. i, f. 6a-c. [Porro cites as synonym "*Planorbis substriatus* Meg. in litteris."]  
 1841. (*Planorbis*) *Gyraulus deformis* [Fér.]: HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 95, pl. xxvii, xxxv & xxxvi. [*Non* Lamarck, 1822.]

<sup>1</sup> For the history of this species, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, 1924, p. 12.



1871. *Planorbis cavatus*: WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 133.
1873. *Planorbis* (*Gyraulus*) *deformis*, Hartm.: WESTERLUND, *Fauna Moll. Sveciæ*, p. 394.
1875. *Planorbis* (*Gyraulus*) *devians*, Porro: WESTERLUND, *Malak. Blätt.*, xxii, p. 112.
1875. *Planorbis* (*Gyraulus*) *cavatus*, West.: WESTERLUND, *l. c.*, in synonym.
1881. *Planorbis* (*Gyraulus*) *strömi*, nov. sp.: WESTERLUND, *Öfvers. K. Vet. Akad. Förhandl. Stockholm*, xxxviii, no. 4, p. 63.

First recorded as British in 1890, by B. B. Woodward (*Proc. Geol. Assoc.*, xi, p. 339) as a var. of *P. carinatus*.  
British Distribution in Time: Holocene and Recent.

### 8. *Planorbis* (*Gyraulus*) *crista* (Linné).

Etym.:—Lat. *crista*, a crest.

1758. *Nautilus crista*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 709, no. 234.
1767. *Turbo Nautilus*: LINNÆUS, *o. c.*, ed. 12, p. 1241, no. 654.
1774. *Planorbis imbricatus*: MÜLLER, *Verm. Hist.*, ii, p. 165.
1791. *Turbo nautilus*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3612, no. 98.
1798. *Helix carinata*: JACOB, in *Adams' Essays on Micro.*, ed. 2, p. 635, pl. xiv, f. 10.
1798. *Helix spinosa*: JACOB, *o. c.*, p. 636, pl. xiv, f. 11.
1801. *Planorbis imbricatus*: DRAPARNAUD, *Tabl. Moll. France*, p. 46.
1802. *Helix carinata*: LINNÆUS, *Gen. Syst. Nature*, trans. Turton, iv, p. 510.
1802. *Helix spinosa*: LINNÆUS, *t. c.*, p. 525.
1803. *Helix nautilus*, Lin.: MONTAGU, *Test. Brit.*, p. 464, pl. xxv, f. 5.  
[According to Montagu (*Test. Brit.*, Suppt., p. 146) this species occurred in the Portland Collection under the name of *Helix nautiloides*.]
1805. *Planorbis imbricatus*: DRAPARNAUD, *Hist. Moll. France*, p. 44, pl. i, f. 49–51.
1805. *Planorbis cristatus*: DRAPARNAUD, *o. c.*, p. 44, pl. ii, f. 1–3.
1807. *Turbo nautilus*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 169.
1813. *Turbo nautilus*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 50, pl. xix, f. 16.
- 1813? *Planorbis cristatus*: FLEMING, *Edinb. Ency.*, vii, p. 69.
- 1813? *Planorbis nautilus*: FLEMING, *l. c.*
1817. *Turbo nautilus*, Linn.: DILLWYN, *Cat. Shells*, ii p. 882.



1819. *Planorbis imbricatus*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 160.
1821. *Planorbis imbricatus*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 84, pl. iv, f. 15.
1823. *Turbo nautilus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Planorbis cristatus*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 98.
1827. *Planorbis imbricatus*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 46 & 47.
1828. *Planorbis nautilus* [sic], Linn. : FLEMING, *Hist. Brit. Anim.*, p. 278.
1830. *Planorbis imbricatus*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 388.
1831. *Planorbis imbricatus*, Drap. : TURTON, *Manual*, p. 111, f. 94.
1837. *Planorbis (Gyraulus) imbricatus*, Drap. : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 21.
1837. *Planorbis (Gyraulus) cristatus*, Drap. : CHARPENTIER, *l. c.*
1840. } *Planorbis imbricatus*, Müller : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 261, pl. viii, f. 94.
- Post. } *Planorbis imbricatus*, Müller : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 31, pl. xiv, f. 46 & 47, xviii,  
1840. } f. 10.
1842. *Armiger cristatus*, m. : HARTMANN, *Erd- & Süssw.-Gasterop.*, pp. 172 & 179.
1845. *Planorbis imbricatus*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 19, pl. iii, f. 40-43.
1850. *Planorbis (Nautilina) nautilus* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 81.
1852. } *Planorbis imbricatus*, Müll. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 115.
1852. } *Planorbis nautilus*, Linnæus : FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 152, pl. cxxvi, f. 6 & 7.
1855. *Planorbis (Nautilina) nautilus*, Linn. : H. & A. ADAMS, *Genera Moll.*, ii, p. 264.
1856. *Planorbis (Gyraulus) nautilus*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 438, pl. xxxi, f. 6-11.
1857. *Planorbis (Gyraulus) nautilus*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 236, pl. viii, f. 94.
1862. *Planorbis Nautilus*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 82: v, pl. v, f. 3.
1863. *Planorbis crista*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 141, figs.
1864. *Planorbis (Gyraulus) crista*, L. : MÖRCH, *Synop. Moll. Danicæ*, p. 53.
1873. *Planorbis (Armiger) crista*, Lin. : WESTERLUND, *Fauna Moll. Svec.*, p. 399.

1878. *Planorbis (Armiger) nautilus*, Linn.: NEVILL, *Hand List Moll. Indian Mus.*, p. 247.
1903. *Planorbis (Spiniformis) cristatus*, Linné [*i.e.* Drap.]: GERMAIN, *Bull. Soc. Sci. Ouest France*, Sér. II, tom. iii, p. 204.
1903. *Planorbis (Spiniformis) imbricatus*, Müller: GERMAIN, *l. c.*
1912. *Planorbis (Armiger) cristatus* [sic], Linné: GERMAIN, *Arch. Mus. Hist. Nat. Lyon*, xi, no. 3, p. 112.

First recorded as British in 1784, by Boys & Walker (*Test. minut. var.*, p. 6, pl. i, f. 20 & 21).

British Distribution in Time: Cromerian to Recent.

### 9. *Planorbis (Gyraulus) dilatatus*, Gould.

Etym.:—Lat. *dilatatus*, expanded.

1841. *Planorbis dilatatus*: GOULD, *Invert. Massachusetts*, p. 210, f. 140.
1855. *Planorbis (Nautilina) dilatatus*, Gould: H. & A. ADAMS, *Genera Moll.*, ii, p. 263.
1865. *Planorbis (Gyraulus) dilatatus*, Gould: W. G. BINNEY, *L. & F.-W. Shells N. Amer.*, ii, p. 131, f. 218.

First recorded as British in 1869, by J. G. Jeffreys (*Ann. & Mag. Nat. Hist.*, Ser. IV, vol. iv, p. 341).

British Distribution in Time: Recent.

### 10. *Planorbis (Spiralina) vortex* (Linné).

Etym.:—Lat. *vortex*, a whirlpool.

1758. *Helix Vortex*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 770, no. 583.
1767. *Helix Vortex*: LINNÆUS, *o. c.*, ed. 12, p. 1243, no. 667.
1767. *Planorbis vortex*, Linn.: GEOFFROY, *Traité Coq. Paris*, p. 93.
1774. *Planorbis vortex*: MÜLLER, *Verm. Hist.*, ii, p. 158.
1778. *Helix planorbis*: DACOSTA, *Test. Brit.*, p. 65, pl. iv, f. 12. [*Non Linné.*]
1791. *Helix vortex*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3620, no. 30.
1799. *Helix vortex*: PULTENEY, *Cat. Dorset.*, p. 47.
1803. *Helix vortex*, Linn.: MONTAGU, *Test. Brit.*, p. 454, pl. xxv, f. 3.
1807. *Helix vortex*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 189.
1813. *Helix vortex*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 52, pl. xx, f. 12.
1817. *Helix vortex*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 904.
1820. *Planorbis tenellus*, mihi: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 92. (In reprint, "*Syst. Verzeichn.*," p. 25.) [*Fide Charpentier.*]

1821. *Planorbis vortex*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 79, pl. iv, f. 7.
1823. *Helix vortex* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1826. *Planorbis vortex*, Mull. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 98.
1826. *Planorbis nitidus* [Müll. pars] : RISSO, *l. c.* [Teste Bourguignat.]
1827. *Planorbis vortex*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 44 & 45.
1830. *Planorbis vortex*, Linn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 382.
1831. *Planorbis compressus*, nobis : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 81, pl. xvi, f. 6-8.
1831. *Planorbis vortex*, Drap. : TURTON, *Manual*, p. 109, f. 91. [Non Draparnaud.]
1833. *Anisus vortex*, Studer : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 111. [Studer wrote "*Planorbis vortex* ? Drap."]
1837. *Planorbis nunulus*, mihi : HELD, *Isis*, xxx, hft. 4, col. 304.
- 1840, } *Planorbis vortex*, Linn. : GRAY, in Turton's *Manual*, new  
Apr. } ed., p. 267, pl. viii, f. 91.  
Post } *Planorbis vortex*, Müller : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 32, pl. xiv, f. 44 & 45 [in text  
1840. } 42 & 43].
1845. *Planorbis vortex*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 22, pl. iii, f. 32 & 33.
1847. *Helix Papia*, Ch. : NARDO, *Sinon. Species Chiareghini*, col. 85.
1850. *Planorbis (Tropidiscus) vortex* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 77.
1852. *Planorbis vortex*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iv, p. 157, pl. cxxvii, f. 6-8.
1855. *Planorbis (Anisus) vortex*, Linn. : H. & A. ADAMS, *Genera Moll.*, ii, p. 263.
1856. *Planorbis (Gyrorbis) vortex*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 433, pl. xxx, f. 34-37.
1857. *Planorbis (Gyrorbis) vortex*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 242, pl. viii, f. 91.
1862. *Planorbis vortex*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 88; v, pl. v, f. 7.
1863. *Planorbis vortex*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 144, figs.
1893. *Planorbis vorticosus*, Linné : LOCARD, *Coq. Eaux douces France*, p. 57, f. 42-44. (Reissued in *Ann. Soc. Agric. Lyon*, Sér. VII, tom. i, 1894, p. 57, f. 42-44.) [Since Locard quotes Linné's name of *vortex* correctly in his synonymy it is hard to understand why he gratuitously altered it.]

1897. *Planorbis*<sup>s</sup> (*Diplodiscus*) *vortex*, Linn.: WESTERLUND, *Acta Soc. Fauna & Flora Fenn.*, xiii, no. 7, p. 115.  
 1909. *Wuestia vortex* (Linné): HONIGMANN, *Zeitschr. f. Naturw.*, lxxxix, p. 296.

First recorded as British probably in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 25).

British Distribution in Time: Pleistocene to Recent.

### 11. *Planorbis* (*Spiralina*) *vorticulus*, Troschel.

Etym.:—Lat. dimin. of *vortex*, a whirlpool.

1805. *Planorbis vortex*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 44, pl. ii, f. 4 & 5. [Non Linné.]  
 1834. *Planorbis vorticulus*: TROSCHER, *De Linnæaccis*, p. 51.  
 1835. *Planorbis leucostoma*, Mich.: ROSSMÄSSLER, *Icon.*, i, p. 105, f. 62. [Non Michaud.]  
 1838. *Planorbis vortex*, d. *vorticulus*, Trosch.?: BECK, *Index Moll.*, p. 122.  
 ?1854. *Planorbis fragilis*, Millet: MILLET, *Ann. Soc. Linn. Maine-et-Loire*, i, p. 291.  
 ?1856. *Planorbis acies*, m.: A. SCHMIDT, *Zeitschr. Gesammt. Naturw. Berlin*, viii, p. 154.  
 1875. *Planorbis* (*Tropidiscus*) *vorticulus*, Troschel: WESTERLUND, *Malak. Blätt.*, xxii, p. 106.  
 1877. *Planorbis* (*Gyrorbis*) *vorticulus*, Troschel: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 405, f. 257.  
 1897. *Planorbis* (*Diplodiscus*) *vorticulus*, Trosch.: WESTERLUND, *Acta Soc. Fauna & Flora Fenn.*, xiii, no. 7, p. 116.  
 1909. *Wuestia vorticulus* (Troschel): HONIGMANN, *Zeitschr. f. Naturw.*, lxxxix, p. 296.

First recorded as British in 1905 by A. S. Kennard & B. B. Woodward (*Proc. Malac. Soc. Lond.*, vi, p. 356).

British Distribution in Time: Cromerian to Recent.

### 12. *Planorbis* (*spiralina*) *spirorbis* (Linné).

Etym.:—Lat. *spira*, a coil + *orbis*, a circle.

1758. *Helix spirorbis*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 770, no. 588.  
 1767. *Helix spirorbis*: LINNÆUS, *o. c.*, ed. 12, p. 1244, no. 672.  
 1767. *Planorbis spirorbis*, Linn.: GEOFFROY, *Traité Coq. Paris*, p. 88.  
 1774. *Planorbis spirorbis*: MÜLLER, *Verm. Hist.*, ii, p. 161.  
 1791. *Helix spirorbis*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3624, no. 36.  
 1803. *Helix spirorbis*, Gmel.: MONTAGU, *Test. Brit.*, p. 455, pl. xxv, f. 2.

- ?1805. *Planorbis vortex*, var.  $\beta$ : DRAPARNAUD, *Hist. Moll. France*, p. 45, pl. ii, f. 6 & 7. [According to Millet this = his *leucostoma*.]
1807. *Helix spirorbis*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 191.
1813. *Helix spirorbis*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xx, f. 17.
1817. *Helix spirorbis* Linn.: DILLWYN, *Cat. Shells*, ii, p. 907.
1823. *Helix spirorbis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Planorbis spirorbis*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 42 & 43.
1830. *Helix vortex*,  $\beta$ : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 382.
1831. *Planorbis spirorbis*, Mont.: TURTON, *Manual*, p. 115, f. 98.
1840. } *Planorbis spirorbis*, Müller: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 268, pl. viii, f. 98.
1840. } *Planorbis (Spirorbis) vulgaris*: SWAINSON, *Treatise*  
May. } *Malac.*, p. 337.
- Post } *Planorbis spirorbis*, Müller: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 33, pl. xiv, f. 42 & 43 [in text 44  
1840. } & 45].
1845. *Planorbis spirorbis*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 23, pl. iii, f. 19 & 20.
1847. *Coretus (Anisus) spirorbis*: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 180.
1850. *Planorbis (Spirodiscus) spirorbis*: STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 75.
1852. *Planorbis spirorbis*, Linnæus [pars]: FORBES & HANLEY, *Brit. Moll.*, iv, p. 159.
1855. *Planorbis (Spirorbis) spirorbis*, Müll.: H. & A. ADAMS, *Genera Moll.*, ii, p. 263.
1856. *Planorbis (Gyrorbis) spirorbis*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 437, pl. xxxi, f. 1-5.
1857. *Planorbis (Gyrorbis) spirorbis*, Linn.: GRAY, in Turton's *Manual*, new ed., p. 243, pl. viii, f. 98.
1862. *Planorbis spirorbis*, Müller [pars]: JEFFREYS, *Brit. Conch.*, i, p. 87. [The fig. given, v, pl. v, f. 6, is *P. leucostoma*.]
1863. *Planorbis spirorbis*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 145, figs.
1873. *Planorbis (Tropidiscus) spirorbis* (Linn.), Müll.: WESTERLUND, *Fauna Moll. Svcc.*, p. 387.
1878. *Planorbis (Bathyomphalus) spirorbis*, Müller: NEVILL, *Hand List Moll. Ind. Mus.*, i, p. 247.
1897. *Planorbis (Diplodiscus) spirorbis*, Lin.: WESTERLUND, *Acta Soc. Fauna & Flora Fenn.*, xiii, no. 7, p. 117.
1909. *Wuestia spirorbis* (Linné): HONIGMANN, *Zeitschr. f. Naturw.*, lxxxii, p. 296.

1913. *Planorbis (Paraspira) spirorbis*, Linné : GERMAIN, *Moll. France*, ii, p. 255, f. 302 & 309.

First definitely recorded as British in 1912, it having been previously confused with *P. leucostoma*, by Kennard & Woodward (*Quart. Journ. Geol. Soc.*, lxxviii, p. 237).

British Distribution in Time : Pliocene to Recent.

### 13. *Planorbis (Spiralina) leucostoma*, Millet.

Etym. :—Gr. λευκός, white + στόμα, a mouth.

- ?1801. *Planorbis rotundatus* : POIRET, *Coq. Aisne*, p. 93.  
 ?1805. *Planorbis vortex*, var. β : DRAPARNAUD, *Hist. Moll. France*, p. 44. [*Fide* Millet, but is more likely *P. spirorbis*.]  
 1813. *Planorbis leucostoma* : MILLET, *Moll. Maine & Loire*, p. 16.  
 1821. *Planorbis spirorbis*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 79, pl. iv, f. 8.  
 1826. *Planorbis nitidus* [pars] : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 98. [*Fide* Bourguignat.]  
 1831. *Planorbis leucostoma*, Millet : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 80, pl. xvi, f. 3-5.  
 1833. *Planorbis spirorbis*, Müll. : ROSSMÄSSLER, *Icon.*, i, p. 106, f. 63.  
 1840. *Planorbis vortex*, Linn. [pars] : GRAY, in Turton's *Manual*, new ed., p. 267.  
 1850. *Planorbis (Spirodiscus) leucostoma* : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 74.  
 1850. *Planorbis Perezii*, Graëlls MS. : DUPUY, *Hist. Nat. Moll. France*, p. 441, pl. xxv, f. 6.  
 1850. *Planorbis septemyratus*, Rossm. : DUPUY, *o. c.*, p. 441, pl. xxi, f. 8. [*Non* Rossmässler.]  
 1852. *Planorbis spirorbis*, Linnæus [pars] : FORBES & HANLEY, *Brit. Moll.*, iv, p. 159, pl. cxxvii, f. 9 & 10.  
 ?1854. *Planorbis fragilis*, Millet : MILLET, *Ann. Soc. Linn. Maine & Loire*, i, p. 291.  
 1855. *Planorbis (Spirorbis) leucostoma*, Mich. : H. & A. ADAMS, *Genera Moll.*, ii, p. 263.  
 1856. *Planorbis (Gyrorbis) rotundatus*, Poir. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 435, pl. xxx, f. 38-46.  
 1857. *Planorbis vortex*, Linn. [pars] : GRAY, in Turton's *Manual*, new ed., p. 242.  
 1862. *Planorbis spirorbis*, Müller [pars] : JEFFREYS, *Brit. Conch.*, i, p. 87; v, pl. v, f. 5.  
 1863. *Planorbis spirorbis*, Linnæus [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 145, figs.  
 1868. *Planorbis Davuri* : MÖRCH, *Amer. Journ. Conch.*, iv, p. 32.



1873. *Planorbis* (*Tropidiscus*) *rotundatus*, Poir.: WESTERLUND, *Fauna Moll. Svec.*, p. 385.
1875. *Planorbis* (*Gyrorbis*) *calculiformis*, Sandberger: SANDBERGER, *Land- & Süßw.-Conch. Vorwelt*, p. 779, pl. xxxiii, f. 20.
1885. *Planorbis* (*Gyrorbis*) *leucostoma*, Müll. [sic]: WESTERLUND, *Fauna Paläarct. Region*, v, p. 73.
1897. *Planorbis* (*Diplodiscus*) *spirorbis*, var. *leucostoma*, Mill.: WESTERLUND, *Acta Soc. Fauna & Flora Fenn.*, xiii, no. 7, p. 117.
1909. *Wuestia rotundatus* (Poiret): HONIGMANN, *Zeitsch. f. Naturw.*, lxxxii, p. 296.
1913. *Planorbis* (*Paraspira*) *rotundatus*, Poiret: GERMAIN, *Moll. France*, ii, p. 255, f. 301.
1913. *Planorbis* (*Paraspira*) *Perezi*, Graëlls, in Dupuy: GERMAIN, *t. c.*, p. 255.
1913. *Planorbis* (*Paraspira*) *fragilis*, Millet: GERMAIN, *t. c.*, p. 255.

[GERMAIN (*Rec Indian Mus.*, xxi, 1922, p. 89) states that *Planorbis Villæ*, Adami, is a local variety of this species.]

First recorded as British in 1803, by G. Montagu, as *Pl. spirorbis* (*Test. Brit.*, p. 455, pl. xxv, f. 2).

British Distribution in Time: Cromerian to Recent.

#### 14. *Planorbis* (*Bathyomphalus*) *contortus* (Linné).

Etym.:—Lat. *contortus*, twisted round [on itself].

1758. *Helix contorta*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 770, no. 589.
1767. *Helix contorta*: LINNÆUS, *o. c.*, ed. 12, p. 1244, no. 673.
1774. *Planorbis contortus*: MÜLLER, *Verm. Hist.*, ii, p. 162.
1778. *Helix crassa*: DACOSTA, *Test. Brit.*, p. 66, pl. iv, f. 11.
1791. *Helix contorta*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3624, no. 37.
1799. *Helix umbilicatus* [sic]: PULTENEY, *Cat. Dorset.*, p. 47.
1801. *Planorbis contortus*: DRAPARNAUD, *Tabl. Moll. France*, p. 43.
1803. *Helix contorta*, Lin.: MONTAGU, *Test. Brit.*, p. 457, pl. xxv, f. 6.
- [According to Montagu (*Test. Brit.*, Suppt., p. 146) this species occurred in the Portland Collection under the name of *Helix complanata*.]
1805. *Planorbis contortus*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 42, pl. i, f. 39-41.
1807. *Helix contortus*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 191.



1813. *Helix contorta*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xx, f. 11.
1817. *Helix contorta*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 908.
1821. *Planorbis contortus*, Müll.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 81, pl. iv, f. 11.
1823. *Helix contorta*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Planorbis contortus*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 33 & 34.
1830. *Planorbis contortus*, Linn.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 382.
1831. *Planorbis contortus*, Drap.: TURTON, *Manual*, p. 113, f. 96.
1837. *Planorbis* (*Bathymomphalus*) *contortus*, Drap.: CHARPENTIER, *Neue Denkschr. Allg. Schwiz. Gesell.*, i [no. 2], p. 20.
- 1840, } *Planorbis contortus*, Müller: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 270, pl. viii, f. 96.
- Post } *Planorbis contrortus* [sic], Müller: BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 33, pl. xiv, f. 33 & 34.
1840. }  
1845. } *Planorbis contrortus* [sic], Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 24, pl. iii, f. 24 & 25.
1847. *Coretus* (*Polygyrus*) *contortus*: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 181.
1850. *Planorbis* (*Discoidina*) *contortus*: STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 82.
1852. *Planorbis contortus*, Linnæus: FORBES & HANLEY, *Brit. Moll.*, iv, p. 160, pl. cxxxvi, f. 3.
1855. *Planorbis* (*Spirorbis*) *contortus*, Linn.: H. & A. ADAMS, *Genera Moll.*, ii, p. 263.
1856. *Planorbis* (*Bathymomphalus*) *contortus*, Linn.: MOQUINTANDON, *Hist. Moll. France*, ii, p. 443, pl. xxxi, f. 24-31.
1857. *Planorbis* (*Bathymomphalus*) *contortus*, Linn.: GRAY, in Turton's *Manual*, new ed., p. 244, pl. viii, f. 96.
1862. *Planorbis contortus*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 94; v, pl. vi, f. 4.
1863. *Planorbis contortus*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 146, figs.

[GERMAIN (*Moll. France*, ii, p. 256) gives *Planorbis Rayi*, Bourg. as a synonym.]

First recorded as British about 1702-11, by J. Petiver (*Gazophil.*, pl. xcii, f. 8).

British Distribution in Time: Cromerian to Recent.

#### 15. *Planorbis* (*Hippeutis*) *complanatus* (Linné).

Etym.:—Lat. *complanatus*, made level.

1758. *Helix complanata*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 769, no. 579.

1767. *Helix complanata*: LINNÆUS, *o. c.*, ed. 12, p. 1242, no. 663.
1786. *Helix fontana*: LIGHTFOOT, *Phil. Trans. Roy. Soc.*, lxxvi, p. 165, pl. ii [a], f. 1-4.
1791. *Helix complanata*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3617, no. 21.
- 1801, } *Planorbis complanatus*: POIRET, *Coq. Aisne*, p. 93.  
Apr. }
- 1801, } *Planorbis nitidus*, Mull. [pars]: DRAPARNAUD, *Tabl.*  
July. } *Moll. France*, p. 45.
1803. *Helix fontana*, Lightfoot: MONTAGU, *Test. Brit.*, p. 462, pl. vi, f. 6.  
[According to Montagu (*Test. Brit.*, Suppt., p. 146) this species occurred in the Portland Collection under the name of *Helix nautiloides*.]
1805. *Planorbis complanatus*: DRAPARNAUD, *Hist. Moll. France*, p. 47, pl. ii, f. 20-22.
1807. *Helix fontana*, Lightfoot: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 193.
1813. *Helix fontana*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xix, f. 19.
- 1813? *Planorbis fontanus*: FLEMING, *Edinb. Ency.*, vii, p. 69.
1817. *Helix fontana*, Lightfoot: DILLWYN, *Cat. Shells*, ii, p. 898.
- ?1820. *Planorbis lenticularis*: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91. (In reprint, "Syst. Verzeichn.," p. 24.) [Studer took the specific name from Alten, but the identity of Alten's species is very doubtful.]
1821. *Planorbis lenticularis*: HARTMANN, *Neue Alpina*, i, p. 256. [Hartmann in his nomenclature followed Studer.]
1821. *Planorbis complanatus*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 83, pl. iv, f. 14.
1823. *Helix nitida*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Planorbis lacustris*, Brown's MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 50 & 51.
1830. *Planorbis nitidus*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 388. [Non Müller.]
1831. *Planorbis fontanus*, Mont.: TURTON, *Manual*, p. 110, f. 93.
1833. *Anisus complanatus*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 111.
1837. *Planorbis (Hippeutis) complanatus*, Drap.: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 22.
1837. *Planorbis (Segmentina?) fontana*, Turton: BECK, *Index Moll.*, p. 123.
- 1840, } *Planorbis nitidus*, Müller: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 268, pl. viii, f. 93. [Non Müller.]

- Post } *Planorbis nitidus*, Müller: BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 33, pl. xiv, f. 50 & 51 [in text 48  
 1840. } & 49]. [Non Müller.]
1841. *Hippeutis lenticularis*: HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 51, pl. xiii & xxiii.
1841. *Planorbis helicoides*: BROWN (J.), *Ann. & Mag. Nat. Hist.*, vii, p. 429.
1845. *Planorbis nitidus*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 23, pl. iv, f. 1 & 2. [Non Müller.]
1850. *Planorbis* (*Segmentina*) *fontanus*: STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 78.
1850. } *Segmentina complanata*, Drap.: ZELEBOR, *Ber. & Nov. J* *Mittheil. Freund. Naturw. Wien*, vii, p. 226.
1852. *Planorbis nitidus*, Müller: FORBES & HANLEY, *Brit. Moll.*, iv, p. 161, pl. cxxvii, f. 11 & 12. [Non Müller.]
1855. *Planorbis* (*Helicorbis*) *nitida*, Gray: BENSON, *Journ. Asiat. Soc. Beng.*, xxiv, p. 126.
1855. } *Planorbis* (*Nautilina*) *nitidus*, Müll.: H. & A. ADAMS, Nov. J *Genera Moll.*, ii, p. 263. [Non Müller.]
1856. *Planorbis* (*Hippeutis*) *fontanus*, Lightfoot: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 426, pl. xxx, f. 10-17.
1857. *Planorbis* (*Hippeutis*) *fontanus*, Lightf.: GRAY, in Turton's *Manual*, new ed., p. 243, pl. viii, f. 93.
1862. *Planorbis nitidus*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 81; v, pl. v, f. 2. [Non Müller.]
1863. *Planorbis fontanus*, Lightfoot: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 147, figs.
1873. *Planorbis* (*Hippeutis*) *complanatus*, Lin.: WESTERLUND, *Fauna Moll. Svec.*, p. 402.

First recorded as British in 1786, by J. Lightfoot, as *Helix fontana*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

## Genus: 2. SEGMENTINA, Fleming.

Etym.:—Lat. dimin. of *segmentum*, a section.

Type:—*Planorbis nitidus*, Müller.

(*Planorbis*, *Nautilus*, *Helix*, vett. auctt.)

1818. *Segmentina*: FLEMING, Suppt. 4-6th ed. *Ency. Brit.*, iii, "Conchology," p. 309. ["From the trivial name bestowed on it by Solander." (Fleming, "Moll. Anim.," 1837, p. 99.)]
1819. *Hemithalamus*: LEACH, *Moll. Brit. Synop.* (proofs), p. 137.

1831. *Hemithalamus* : LEACH, in Turton's *Manual*, p. 116, in  
synon.  
1840. *Segmentaria*, sub-gen. of *Planorbis* : SWAINSON, *Treat.*  
*Malac.*, p. 337.  
1855. *Trochorbis* : BENSON, *Journ. Asiat. Soc. Bengal.*, xxiv,  
p. 126.

1. *Segmentina nitida* (Müller).

Etym. :—Lat. *nitidus*, shining.

1774. *Planorbis nitidus* : MÜLLER, *Verm. Hist.*, ii, p. 163.  
1786. *Nautilus lacustris* : LIGHTFOOT, *Phil. Trans. Roy. Soc.*,  
lxxvi, p. 163, pl. i, f. 1-7.  
1791. *Helix nitida* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i,  
pt. 6, p. 3624.  
1801. *Planorbis nitidus* [pars] : DRAPARNAUD, *Tabl. Moll.*  
*France*, p. 45.  
1803. *Nautilus lacustris* : MONTAGU, *Test. Brit.*, p. 191, pl. vi,  
f. 3.  
[Montagu states (p. 195) that Solander returned this  
shell to Boys under the name of *Nautilus Segmentinus*.  
He further says this species occurred in the Portland  
Collection under the name of *Nautilus Ypsilon*  
(*Test. Brit.*, Suppt., p. 88).]  
1805. *Planorbis nitidus*, Mull. : DRAPARNAUD, *Hist. Moll.*  
*France*, p. 46, pl. ii, f. 17-19.  
1807. *Nautilus lacustris*, Lightfoot : MATON & RACKETT, *Trans.*  
*Linn. Soc.*, viii, p. 114.  
1817. *Nautilus lacustris*, Lightfoot : DILLWYN, *Cat. Shells*,  
i, p. 339.  
1818. *Segmentina lacustris*, Lightfoot : FLEMING, Suppt. 4-6th  
ed. *Ency. Brit.*, iii, "Conchology," p. 309.  
1819. *Hemithalamus* [*nitidus*] : LEACH, *Moll. Brit. Synop.*  
(proofs), p. 137.  
1820. *Planorbis clausulatus* : FÉRUSAC, *Journ. Phys.*, xc,  
p. 301.  
1821. *Planorbis nitidus*, Müll. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 82, pl. iv, f. 12 & 13.  
1823. *Helix fontanus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.  
1827. *Planorbis fontanus*, BROWN'S MSS. : BROWN, *Illust.*  
*Conch. Brit.*, ed. 1, pl. xli, f. 48 & 49.  
1828. *Segmentina lineata*, Walk. : FLEMING, *Hist. Brit. Anim.*,  
p. 279.  
1830. *Segmentina nitida* : FLEMING, *Edinb. Ency.*, xii. [A  
reference invented by Gray.]  
1830. } *Planorbis Nautilus*, Fér. : KICKX, *Synop. Moll. Brabant*,  
July. } p. 66. [Non Férussac.]  
1830. *Planorbis lineatus*, Walker : JEFFREYS, *Trans. Linn.*  
*Soc.*, xvi, p. 389.

1831. *Segmentina nitida*, Drap. : TURTON, *Manual*, p. 116, f. 99.
1831. *Hemithalamus* [*nitidus*]: LEACH, in Turton's *Manual*, p. 116, in synonym.
1837. *Planorbis* (*Hippeutis*) *nitidus*, Drap. : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 22.
1840. } *Segmentina lineata*, Walker : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 271, pl. viii, f. 99.
1840. } *Planorbis* (*Segmentaria*) *lacustris*, Flem. : SWAINSON,  
May. } *Treat. Malac.*, p. 338.
- Post } *Segmentina lineata*, Fleming : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 33, pl. xiv, f. 48 & 49 [in text  
1840. } 50 & 51].
1845. *Segmentina lineata*, Fleming : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 25, pl. iv, f. 3 & 4.
1850. *Planorbis* (*Segmentina*) *nitidus*, Müll. : STEIN, *Lebend. Schneck. & Musch. Berlins*, p. 78.
1852. } *Hemithalamus* [*nitidus*]: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 99.
1852. } *Planorbis lacustris*, Lightfoot : FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 162, pl. cxxviii, f. 1-3.
1855. *Trochorbis trochoides*, Bens. : BENSON, *Journ. Asiat. Soc. Bengal*, xxiv, p. 126.
1856. *Planorbis* (*Segmentina*) *nitidus*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 424, pl. xxx, f. 5-9.
1857. *Segmentina nitida*, Müller : GRAY, in Turton's *Manual*, new ed., p. 246, pl. viii, f. 99.
1862. *Planorbis lineatus*, Walker : JEFFREYS, *Brit. Conch.*, i, p. 79; v, pl. v, f. 1.
1863. *Planorbis nitidus*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 148, figs.
1873. *Planorbis clessini*, nov. sp. : WESTERLUND, *Fauna Moll. Svec.*, p. 613.
1877. *Planorbis* (*Hippeutis*) *Clessini*, Westerlund : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 420, f. 277.
1877. *Planorbis* (*Hippeutis*) *nitida*, Müller : CLESSIN, *o. c.*, p. 421, f. 278.
1884. *Planorbis* (*Segmentina*) *Clessini*, Westerlund : CLESSIN, *o. c.*, ed. 2, p. 432, f. 294.
1884. *Planorbis* (*Segmentina*) *nitida*, Müller : CLESSIN, *o. c.*, ed. 2, p. 433, f. 295.

[GERMAIN (*Moll. France*, ii, p. 260) gives as synonyms:—*Segmentina Montgazonæ*, Bourg.; and *S. microcephala*, Charpentier.]

First recorded as British in 1784, by Boys & Walker (*Test. minut. rar.*, p. 8, pl. i, f. 28).

British Distribution in Time: Cromerian to Recent.

Fam. : ANCYLIDÆ.<sup>1</sup>

Genus : 1. ANCYLUS, Geoffroy.

Etym. :—"Gree Ἀγκύλος, qui signifie convexe."

Monotype :—*Patella lacustris*, Linné.(*Patella*, vett. auctt.)

1767. *Ancylus* : GEOFFROY, *Traité Coq. Paris*, pp. 13 & 122.  
 1817. *Ancylus* [err. typ. ?] : JURINE, *Helvet. Alman.*, p. 34.  
 1819. *Ancylus*, Geoff. [err. typ.]: SAY, Nicholson's *Brit. Ency.*,  
 3rd Amer. ed., "Conchology" [p. 8].  
 1837. *Acroloxus*, subg. 2 of *Ancylus* : BECK, *Index Moll.*, p. 124.  
 1840. *Vellectia* : GRAY in Turton's *Manual*, new ed., p. 250.  
 1846. *Ancyllus* [err. typ. ?] [pars] : GRAËLLS, *Cat. Moll. España*,  
 p. 22.  
 1853. *Acroxus* : BOURGUIGNAT, *Journ. de Conchyl.*, iv, p. 169.  
 [He misderived Beck's *Acroloxus* from ἀκρος  
 + ὄξυς.]  
 1855. *Acroloxus*, Beck [as a genus] : H. & A. ADAMS, *Genera  
 Moll.*, ii, p. 266.

1. *Ancylus lacustris* (Linné).Etym. :—Lat. *lacus*, a lake.

1758. *Patella lacustris* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 783,  
 no. 672.  
 1767. *Patella lacustris* : LINNÆUS, *o. c.*, ed. 12, p. 1260, no. 769.  
 1767. *Ancylus lacustris*, Linn. : GEOFFROY, *Traité Coq. Paris*,  
 p. 124.  
 1774. *Ancylus lacustris* : MÜLLER, *Verm. Hist.*, ii, p. 199.  
 1786. *Patella oblonga* : LIGHTFOOT, *Phil. Trans. Roy. Soc.*, lxxvi,  
 p. 168, pl. iii [b], f. 1-5.  
 1791. *Patella lacustris* : GMELIN, *Linn. Syst. Nat.*, ed. 13, i,  
 pt. 6, p. 3710.  
 1799. *Patella oblonga* : PULTENEY, *Cat. Dorset.*, p. 51.  
 1801. *Ancylus lacustris* : DRAPARNAUD, *Tabl. Moll. France*,  
 p. 47.  
 1803. *Patella lacustris*, Lin. : MONTAGU, *Test. Brit.*, p. 484.  
 1805. *Ancylus lacustris*, Linn. : DRAPARNAUD, *Hist. Moll.  
 France*, p. 47, pl. ii, f. 25-27.  
 1807. *Patella oblonga*, Lightfoot : MATON & RACKETT, *Trans.  
 Linn. Soc.*, viii, p. 233.  
 1813. *Patella oblonga* : RACKETT, in Pulteney, *Cat. Dorset.*,  
 ed. 2, p. 58, pl. xviii, f. 20\* ; xxii, f. 8a.  
 1813? *Patella (Crepidula) oblonga* : FLEMING, *Edinb. Ency.*,  
 vii, p. 65.

<sup>1</sup> For Notes concerning the genera of the British species and their types,  
 See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1920, p. 86  
 also *Nautilus*, xxxviii, 1925, p. 83.



1817. *Patella oblonga*, Lightft. : DILLWYN, *Cat. Shells*, ii, p. 1042.
1817. *Ancylus* [sic] *lacustris* : JURINE, *Helvet. Alman.*, 1817, p. 34.
1821. *Ancylus lacustris*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 109, pl. iv, f. 46.
1822. *Ancylus Hermannii*, N. : FÉRUSAC, *Dict. Class. Hist. Nat.*, i, p. 346. [*Nom nud.*, renamed *A. Moquinianus* by Bourguignat in 1853.]
1823. *Patella oblonga* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 466.
- ?1826. *Ancylus lacustris*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 94.
1827. *Ancylus lacustris*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxvi, f. 3, 5 & 7.
1830. *Ancylus lacustris*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 391.
1831. *Ancylus lacustris*, Drap. : TURTON, *Manual*, p. 141, f. 126.
1837. *Ancylus (Acroloxus) lacustris* (L.) : BECK, *Index Moll.*, p. 124.
- 1840, } *Velletia lacustris*, Müller : GRAY, *Turton's Manual*, new  
Apr. } ed., p. 250, pl. x, f. 126.
- Post } *Ancylus lacustris*, Müller : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 60, pl. xii, f. 3, 5 & 7.
1840. }
1845. *Ancylus lacustris*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 95, pl. x, f. 4-6.
1852. *Ancylus oblongus*, Lightfoot : FORBES & HANLEY, *Brit. Moll.*, iv, p. 188, pl. cxxii, f. 5.
1853. *Acyclus Moquinianus*, Bourg. : BOURGUIGNAT, *Journ. de Conchyl.*, iv, p. 197, pl. vi, f. 9. [*Nom. nov.* for *A. Hermannii*, Fér.]
1855. *Acroloxus lacustris*, Linn. : H. & A. ADAMS, *Genera Moll.*, ii, p. 267, pl. lxxxiv, f. 6, 6a.
1856. *Ancylus (Velletia) lacustris*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 488, pl. xxxvi, f. 50-55.
1857. *Velletia lacustris*, Müller : GRAY, *Turton's Manual*, new ed., p. 221, pl. x, f. 126.
1862. *Ancylus lacustris*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 122; v, pl. viii, f. 2.
1863. *Ancylus lacustris*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 172, figs.
1880. *Velletia lingulata*, Sandb. : SANDBERGER, *Palaeontographica*, xxvii (N.F. vii), p. 101, pl. xii, f. 9-9b.

First recorded as British in 1786, by J. Lightfoot as *Patella oblonga*. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

[The Record from the Pliocene is an error.]



Genus : 2. **ANCYLASTRUM**, Bourguignat.

\* Etym. :—Lat. *Ancylus*, the molluscan genus + *-astrum*, resembling.

Type :—*Patella fluviatilis*, Müller.  
(*Patella*, *Ancylus*, vett. auctt.)

1815. *Bullinus* [pars] : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 303.  
 1815. *Ancilus* : BRARD, *Hist. Coq. Paris*, p. 198.  
 1840. *Ansulus* : } GRAY, in Turton's *Manual*, new ed., p. 247.  
 1840. *Ansylus* : } [Suggested as alternative spellings.]  
 1853. *Ancylastrum*, subg. of *Ancylus* : BOURGUIGNAT, *Journ. de Conchyl.*, iv, p. 63.  
 1921. *Pseudancylus* : WALKER : *Nautilus*, xxxv, p. 58.

1. **Ancylastrum fluviatilis** (Müller).

Etym. :—Lat. *fluviatilis*, inhabiting rivers.

- ?1771. *Lepas simplex* : BUC'HOZ, *Aldrov. Lotharing.*, p. 236, no. 1130. [Teste Bourguignat. Buc'hoz was not a binominal author.]  
 1774. *Ancylus fluviatilis* : MÜLLER, *Verm. Hist.*, ii, p. 201.  
 1777. *Patella lacustris*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 143; 4to, p. 125.  
 1778. *Patella fluviatilis* : DACOSTA, *Test. Brit.*, p. 1, pl. ii, f. 8.  
 1791. *Patella fluviatilis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3711.  
 1799. *Patella lacustris* : PULTENEY, *Cat. Dorset.*, p. 51.  
 1801, }  
 Apr. } *Patella cornea* : POIRET, *Coq. Aisne*, p. 99.  
 1801, }  
 July. } *Ancylus fluviatilis*, Mull. : DRAPARNAUD, *Tabl. Moll. France*, p. 47.  
 1803. *Patella fluviatilis*, Gmel. : MONTAGU, *Test. Brit.*, p. 482.  
 1803. *Patella lacustris*, Gmel. : DONOVAN, *Brit. Shells*, iv, pl. cxlvii.  
 1805. *Ancylus fluviatilis*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 48, pl. ii, f. 23 & 24.  
 1807. *Patella lacustris*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 232.  
 1813. *Patella lacustris* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 58, pl. xxii, f. 8.  
 1813? *Patella* (*Crepidula*) *lacustris* : FLEMING, *Edinb. Ency.*, vii, p. 65.  
 1814. *Ancylus riparius*, Desm. : } DESMAREST, *Bull. des Sci.*,  
 1814. *Ancylus deperditus*, Desm. : } *Soc. Philom. Paris*, p. 19.  
 1815. *Bullinus fluviatilis* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 303.  
 1815. *Ancilus fluviatilis* : BRARD, *Hist. Coq. Paris*, p. 200, pl. vii, f. 3.

1815. *Ancilus sinuosus*, n. sp. : BRARD, *o. c.*, p. 201, pl. vii, f. 4.  
 1817. *Patella lacustris*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 1041.  
 1817. *Ancylus* [sic] *fluviatilis* : JURINE, *Helvet. Alman*, 1817, p. 34.  
 1821. *Ancylus fluviatilis*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 107, pl. iv, f. 44 & 45.  
 1822. *Ancylus rotundatus*, N. : FÉRUSSAC, *Dict. Class. Hist. Nat.*, i, p. 346. [*Nom. nud.*, renamed *A. cyclostoma* by Bourguignat in 1853.]  
 1822. *Ancylus costatus*, N. : FÉRUSSAC, *Dict. Class. Hist. Nat.*, i, p. 346. [*Fide* Bourguignat.]  
 1823. *Patella lacustris* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 466.  
 1827. *Ancylus fluviatilis*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxvi, f. 1, 4 & 6.  
 1830. *Ancylus fluviatilis*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 390.  
 1831. *Ancylus fluviatilis*, Drap. : TURTON, *Manual*, p. 140, f. 125.  
 1831. *Ancylus sinuosus*, Brard : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 90, pl. xvi, f. 1 & 2.  
 1838. *Ancylus capuloides*, Jan : JAN, in PORRO, *Malac. prov. Comasca*, p. 87, pl. i, f. 7.  
 1839. *Ancylus Tinei*, N. : BIVONA, *Giorn. Sci. Lett. Palermo*, lxiv (altered in MS. to lxvi), p. 222.  
 1840, } *Ancylus fluviatilis*, Müll. : GRAY, *Turton's Manual*, new  
 Apr. } ed., p. 249, pl. x, f. 125.  
 Post }  
 Sept. } *Ancylus fluviatilis*, Müller : BROWN, *Illust. Conch. Brit.*,  
 1840. } ed. 2, p. 59, pl. xii, f. 1, 4 & 6.  
 1840. *Ancylus margaritaceus*, n. : A. COSTA, *Esercit. Accad. Aspir. Nat.*, ii, pt. 1, cap. iii, Zool., p. 68. [*Nom. nud.*] [*Fide* Bourguignat.]  
 1841. *Ancylus costatus* : VILLA, *Disp. syst. Conch.*, p. 61. [*Non* Férussac = *radiolatus*, Küst, *fide* Mousson.]  
 1845. *Ancylus vitraceus*, spec. nov. : MORELET, *Descript. Moll. Portugal*, p. 87, pl. viii, f. 3.  
 1845. *Ancylus strictus*, spec. nov. : MORELET, *o. c.*, p. 88, pl. viii, f. 4.  
 1845. *Ancylus obtusus*, spec. nov. : MORELET, *o. c.*, p. 88, pl. viii, f. 5.  
 1845. *Ancylus vitreus* : RÉCLUZ, *Rev. Zool.*, 1845, p. 311. [*Nov. nov.* for *A. vitraceus*, Morelet.]  
 1845. *Ancylus fluviatilis*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 94, pl. x, f. 1-3; xxiv, f. 25.  
 1846. *Ancylus striatus*, Quoy & Gaim. : PORRO, *Coll. Rer. Nat. Mus. Mediol. Moll.*, p. 22.  
 1849. *Ancylus Fabrei*, Dupuy : DUPUY, *Cat. extramar. Galliae Test.* [p. 3], no. 7; *Hist. Moll. France*, p. 493 1851, pl. xxvi, f. 3.

1851. *Ancylus deperditus*, Ziegl. MS.: DUPUY, *Hist. Moll. France*, p. 494, pl. xxvi, f. 4.
1851. *Ancylus striatus*, Quoy & Gaim.: DUPUY, *o. c.*, p. 495, pl. xxvi, f. 5.
1851. *Ancylus Frayssianus*: DUPUY, *o. c.*, p. 496, pl. xxvi, f. 6.
1851. *Ancylus deperditus*, Ziegl.: RAY & DROUET, *Rev. & Mag. Zool.*, Sér. II, tom. iii, p. 1386.
1852. *Ancylus fluviatilis*, Müller: FORBES & HANLEY, *Brit. Moll.*, iv, p. 186, pl. cxxii, f. 4.
1853. *Ancylus Janii*, Bourguignat: BOURGUIGNAT, *Journ. de Conchyl.*, iv, p. 185.
1853. *Ancylus gibbosus*, Bourguignat: BOURGUIGNAT, *t. c.*, p. 186.
1853. *Ancylus simplex*, Buc'hoz: BOURGUIGNAT, *t. c.*, p. 187.
1853. *Ancylus cyclostoma*, Bourg.: BOURGUIGNAT, *t. c.*, p. 193. [*Nom. nov.* for *A. rotundatus*, Fér.]
1856. *Ancylus* (*Ancylastrum*) *fluviatilis*, Müll.: MOUQUIN-TANDON, *Hist. Moll. France*, ii, p. 484, pl. xxxv, f. 5-38.
1857. *Ancylus fluviatilis*, Müller: GRAY, *Turton's Manual*, new ed., p. 219, f. 52, pl. x, f. 125.
1859. *Ancylus radiolatus*, Küst.: MOUSSON, *Coq. recueil. Orient. Schlafli*, p. 54.
1862. *Ancylus fluviatilis*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 120; v, pl. viii, f. 1.
1863. *Ancylus fluviatilis*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 171, figs.
1921. *Pseudancylus fluviatilis*, Müll.: WALKER, *Nautilus*, xxxv, p. 58.

First recorded as British in 1678, by M. Lister (*Hist. Anim. Angl.*, p. 15, pl. ii, f. 32).

British Distribution in Time: Cromerian to Recent.

Fam.: PHYSIDÆ.

Genus: 1. **PHYSA**, Draparnaud.

Etym.:—Gr. φυσάω, to blow out.

Type:—*Bulla fontinalis*, Linnæus. (Fleming, 1822.)

(*Bulla*, *Planorbis*, *Turbo*, *Helix*, vett. auctt.)

1781. *Bulinus* (Adanson) [pars]: MÜLLER, *Naturforscher*, xv, p. 6.
1801. *Bulla*: FÉRUSAC, *Mém. Soc. Méd. Émul. Paris*, iv, p. 394. [*Non* Linnæus, 1758.]
1801. *Physa*: DRAPARNAUD, *Tabl. Moll. France*, p. 52.
- \*1810. *Exydra* [err. typ. ?]: HUEBNER, *Epistola*, i (*Teste Menke, Zeitschr. f. Malak.*, v, 1848, p. 56.)

1815. *Physina* : RAFINESQUE, *Analyse Nature*, p. 144.  
 1815. *Bullinus* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 303.  
 1820. *Anisus* [pars] : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 91.  
 1826. *Phyza* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 96.  
 1833. *Rivicola* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 110.  
 1840. *Physodon*, subg. of *Physa* : HALDEMAN, *Monog. Limniades*, pt. i, Suppt., p. 2; pt. vi, 1843, *Physa*, p. 39, pl. iv, f. 12-14.  
 1842. *Physella*, subg. of *Physa* : HALDEMAN, *o. c.*, pt. iv, p. 4 of cover; pt. vi, 1843, *Physa*, p. 38, pl. v, f. 10-12.  
 1848. *Echemythes*, N. : GISTEL, *Naturg. Thierreichs f. Schulen*, p. x.  
 1923. *Enydra* Hübner (em. ?) : WENZ, in Diener, *Foss. Cat.*, pt. 22, p. 1705.

### 1. *Physa fontinalis* (Linnæus).

Etym. :—Lat. *fontinalis*, pertaining to a spring, or fountain.

1758. *Bulla fontinalis* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 727, no. 340.  
 1767. *Bulla fontinalis* : LINNÆUS, *o. c.*, ed. 12, p. 1185, no. 386.  
 1774. *Planorbis bulla* : MÜLLER, *Verm. Hist.*, ii, p. 167.  
 1778. *Turbo adversus* : DACOSTA, *Test. Brit.*, p. 96, pl. v, f. 6.  
 1781. *Bulinus perla* : MÜLLER, *Naturforscher*, xv, p. 6.  
 1789. *Helix pellucida* : RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 276.  
 1789. *Bulinus fontinalis*, nob. : BRUGUIÈRE, *Ency. Méthod.*, Vers, i, p. 306.  
 1791. *Bulla fontinalis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3427, no. 18.  
 1799. *Bulla fontinalis* : PULTENEY, *Cat. Dorset.*, p. 40.  
 1801. *Physa fontinalis* : DRAPARNAUD, *Tabl. Moll. France*, p. 52.  
 1803. *Helix bullaoides* : DONOVAN, *Brit. Shells*, v, pl. clxviii, f. 2.  
 1803. *Bulla fontinalis*, Linn. : MONTAGU, *Test. Brit.*, p. 226.  
 1805. *Physa fontinalis*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 54, pl. iii, f. 8 & 9.  
 1807, }  
 Jan. } *Helix bulloides* : TURTON, *Brit. Fauna*, p. 195.  
 1807. *Bulla fontinalis*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 126.  
 1813. *Bulla fontinalis* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 43, pl. xxi, f. 6.  
 1815. *Bullinus perla* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 303.  
 1817. *Bulla fontinalis*, Linn. : DILLWYN, *Cat. Shells*, i, p. 487.

- 1819, } *Bulla fluviatilis*: TURTON, *Conch. Dict.*, p. 27.  
Feb. }
1819. *Physa fontinalis*, Linn.: LEACH, *Moll. Brit. Synop.*  
(proofs), p. 150.
1821. *Physa fontinalis*, Linn.: C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 94, pl. iv, f. 28.
1822. *Limnea (Physa) fontinalis*: SOWERBY, *Genera Shells*,  
no. 7, "Limnea" [p. 3], f. 8.
1823. *Bulla fontinalis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 433.
- ?1825. *Physa alba*: TURTON, *Zool. Journ.*, ii, p. 363, pl. xiii, f. 3.
1826. *Physa fontinalis*, Drap.: RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 96.
1827. *Physa fontinalis*, Lam.: BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xli, f. 54 & 55.
1827. *Physa alba*, Turton: BROWN, *o. c.*, pl. xli, f. 56 & 57.
1827. *Physa fluviatilis*, Brown's MSS.: BROWN, *o. c.*, pl. xli,  
f. 83 & 84.
1830. *Physa fontinalis*, Linn.: JEFFREYS, *Trans. Linn. Soc.*,  
xvi, p. 379.
1831. *Physa fontinalis*, Drap.: TURTON, *Manual*, p. 127, f. 110.
1833. *Rivicola fontinalis*, mihi: FITZINGER, *Beitr. Landesk.*  
*Oesterr.*, iii, p. 110.
1837. *Bulinus (Bulinus) fontinalis*, (L.) B.: BECK, *Index Moll.*,  
p. 117.
- 1840, } *Physa fontinalis*, Drap.: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 251, pl. ix, f. 110.
- Post. } *Physa fontinalis*, Drapernaud: BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 30, pl. xiv, f. 83 & 84, & xv,  
1840. } f. 54-57.
1845. *Physa fontinalis*, Drapernaud: BROWN, *Illust. L. &*  
*F.-W. Conch. Brit.*, p. 15, pl. iii, f. 13 & 14.
1847. *Bulinus (Physa) fontinalis*: GRAY, *Proc. Zool. Soc. Lond.*,  
xv, p. 180.
- 1852, } *Physa fontinalis*, Linn.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 109.
- 1852, } *Physa fontinalis*, Linnæus: FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 140, pl. cxxii, f. 8 & 9.
1856. *Physa (Bulinus) fontinalis*, Linn.: MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 451, pl. xxxii, f. 9-13.
1857. *Physa (Physina) fontinalis*, Linn.: GRAY, in Turton's  
*Manual*, new ed., p. 225, f. 54, pl. ix, f. 110.
1862. *Physa fontinalis*, Linné: JEFFREYS, *Brit. Conch.*, i,  
p. 98; v, pl. vi, f. 6.
1863. *Physa fontinalis*, Linnæus: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 151, figs.

[GERMAIN (*Moll. France*, ii, p. 247) cites as synonyms:—  
*Physa Coronadoi*, Servain; *P. Taciti*, Bourg;  
*P. acutespira*, Bourg.]

WESTERLUND (*Fauna Paläarct. Region*, v, p. 55) adds to these *P. Taslei*, Bourg., which Germain considers to be distinct.]

First recorded as British in 1678, by J. Lister (*Hist. Anim. Angl.*, p. 142, pl. ii, f. 25).

British Distribution in Time: Cromerian to Recent.

## 2. *Physa rivalis* (Turton).

Etym. :—Lat. *rivalis*, pertaining to a brook.

1791. *Bulla fontinalis*,  $\beta$ : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3427. [Teste Dillwyn (as *B. crassula*) and Binney.]
- 1807, Jan. { *Bulla rivalis*: TURTON, *Brit. Fauna*, p. 169. [He probably took the name from Maton & Rackett, whose paper was read in 1804, because in his *Conch. Dict.* (p. 26) and in *Zool. Journ.*, ii, he cites those authors only.]
1807. *Bulla rivalis*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 126, pl. iv, f. 2.
1808. *Bulla rivalis*: MONTAGU, *Test. Brit.*, Suppt., p. 97.
1817. *Bulla crassula*: DILLWYN, *Cat. Shells*, i, p. 487. [Teste Binney.]
1817. *Bulla rivalis*, Maton & R.: DILLWYN, *t. c.*, p. 488.
- \*1819. *Physa heterostropha*: SAY, Nicholson's *Brit. Ency.*, 3rd Amer. ed., "Conchology," p. ?, pl. i, f. 6. (Binney's ed., p. 46, pl. lxxix, f. 6.)
1820. *Aplexa rivalis*: FLEMING, Brewster's *Edinb. Ency.*, xiv, p. 617. [He remarks in *Brit. Anim.*, 1828, p. 277, "it is a common shell from the West Indies."]
1822. *Limnea (Physa) rivalis*: SOWERBY, *Genera Shells*, no. 7, [p. 3.], "Limnea," f. 9.
- \*1826. *Helix heterostrophus*: EATON, *Zool. Text Book*, p. 195. [Teste Binney, ii, p. 85.]
1831. *Physa rivalis*: TURTON, *Manual*, p. 128, f. 112.
1837. *Bulinus (Aplexa) rivalis* (M. et Rq.) Sowb.: BECK, *Index Moll.*, p. 116.
1840. *Aplexus rivalis*: GRAY, in Turton's *Manual*, new ed., p. 21, pl. ix, f. 112.
1841. *Physa fontana*: HALDEMAN, *Monog. Limniades*, no. 2 wrapper, p. iii.
1841. *Physa osculans*: HALDEMAN, *o. c.*, no. 2 wrapper, p. iii, and no. 6, 1843, p. 29, pl. ii, f. 11-13.
1841. *Physa sowerbyana*, d'Orb.: ORBIGNY, *Hist. Ile Cuba, Sagra*, Moll., i, p. 190, pl. xiii, f. 11-13.
1841. *Physa inflata*: LEA, *Proc. Amer. Phil. Soc.*, ii, p. 32. (Also *Trans. Amer. Phil. Soc.*, ix, 1844, p. 7.)



1843. *Physa plicata*: DEKAY, *Nat. Hist. New York, Zool.* v, Moll., p. 78, pl. v, f. 85.
1844. *Physa Philippii*, Küster: KÜSTER, in Martini & Chemnitz, *Conch.-Cab.*, Physa, p. 19, pl. iii, f. 3-6.
1850. *Physa Charpentieri*, Küster: KÜSTER, in Martini & Chemnitz, *Conch.-Cab.*, Physa, p. 23, pl. iv, f. 4-6.
1852. *Physa rivalis*, Maton & Rackett: FORBES & HANLEY, *Brit. Moll.*, iv, p. 145.
1857. *Aplexus rivalis*: GRAY, in Turton's *Manual*, new ed., p. 227, pl. ix, f. 112.
1862. *Bulla rivalis*, Maton & Rackett: JEFFREYS, *Brit. Conch.*, i, p. 100.
1865. *Physa Primeana*, Tryon: TRYON, *Amer. Journ. Conch.*, i, p. 227, pl. xxiii, f. 12.
1865. *Physa lata*, Tryon: TRYON, *t. c.*, p. 227, pl. xxiii, f. 7.  
First recorded as British in 1807, by W. Turton. (See ref. above.)  
British Distribution in Time: Recent.

Genus: 2. **APLEXA**, Fleming.

Etym.:—Gr. (ex auct.) “ $\alpha + \pi\lambda\acute{\epsilon}\xi\iota\varsigma$ , Lacina,” without a plait.

Type:—*Bulla hypnorum*, Linnæus.

(*Bulla*, *Planorbis*, *Bulinus*, *Bullinus*, *Bulimus*, *Helix*, *Physa*, vett. auctt.)

1819. *Nauta*: LEACH, *Moll. Brit. Synop.* (proofs), p. 152.
1820. *Aplexa*: FLEMING, Brewster's *Edinb. Ency.*, xiv, p. 617.
1831. *Nauta*: LEACH, in Turton's *Manual*, p. 128, in synonym of *Physa*.
1840. } *Aplexus*, Fleming: GRAY, in Turton's *Manual*, new ed.,  
Apr. } p. 255.
- Post } *Amplexa*: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 31, in  
Sept. } synonym. [*Non Amplexus*, Brown, *op. cit.*,  
1840. } p. 45.]
1846. *Apecta*: HERRMANNSEN, *Ind. Gen. Malac., Prod.*, i, p. 64. [*Non* Guénée, 1838 (Lepid.).]
1847. “*Mycas*, ‘Leach,’ Guild.”: GRAY, *Proc. Zool. Soc.*, xv, p. 180, no. 507.

1. **Aplexa hypnorum** (Linnæus).

Etym.:—Lat. gen. pl. of *Hypnum*, a genus of Mosses.

1758. *Bulla hypnorum*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 727, no. 341.
1767. *Bulla hypnorum*: LINNÆUS, *o. c.*, ed. 12, p. 1185, no. 387.
1774. *Planorbis turritus*: MÜLLER, *Verm. Hist.*, ii, p. 169.
1774. *Planorbis gelatinus*: MÜLLER, *t. c.*, p. 170.
1781. *Bulinus turritus*: MÜLLER, *Naturforscher*, xv, p. 6.



1781. *Bulinus gelatinus* : MÜLLER, *l. c.*
1789. *Bulinus hypnorum*, nob. : BRUGUIÈRE, *Ency. Méthod.*,  
Vers, i, p. 301.
1791. *Bulla hypnorum* : GMELIN, in *Linn. Syst. Nat.*, ed. 13,  
i, pt. 6, p. 3428, no. 19.
1791. *Bulla turrita* : GMELIN, *l. c.*, no. 20.
1791. *Bulla gelatinosa* : GMELIN, *l. c.*, no. 21.
1791. *Helix marmorata* : GMELIN, *l. c.*, p. 3665, no. 205.
1801. *Physa hypnorum* : DRAPARNAUD, *Tabl. Moll. France*,  
p. 52.
1803. *Bulla hypnorum*, Linn. : MONTAGU, *Test. Brit.*, p. 228.
1805. *Physa hypnorum*, Linn. : DRAPARNAUD, *Hist. Moll.*  
*France*, p. 55, pl. iii, f. 12 & 13.
1807. *Bulla hypnorum*, Linn. : MATON & RACKETT, *Trans.*  
*Linn. Soc.*, viii, p. 127.
1813. *Bulla hypnorum* : RACKETT, in Pulteney, *Cat. Dorset.*,  
ed. 2, p. 43, pl. xviii, f. 20.
1815. *Bullinus turritus* : OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
p. 303.
1815. *Bullinus gelatinosa* : OKEN, *l. c.*
1817. *Bulla hypnorum*, Linn. : DILLWYN, *Cat. Shells*, i, p. 488.
1819. *Nauta hypnorum*, Brug. : LEACH, *Moll. Brit. Synop.*  
(proofs), p. 152.
- 1820, { *Physa turrita* : STUDER, *Naturw. Anz. Allg. Schweiz.*  
June. { *Gesell.*, iii, p. 92. (In reprint, "Syst.  
Verzeichn.," p. 26.)
- 1820, { *Aplexa hypnorum* : FLEMING, Brewster's *Edinb. Ency.*,  
Nov. { xiv, p. 617.
1821. *Physa hypnorum*, Linn. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 97, pl. iv, f. 29.
- 1821, { *Physa elongata* : SAY, *Journ. Acad. Nat. Sci. Philad.*,  
Nov. { ii, p. 171.
- 1822, { *Physa subopaca* : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2,  
Apr. { p. 157.
- 1822, { *Limnea (Physa) turrita*, Lam. : SOWERBY, *Genera Shells*,  
June. { no. 7, "Limnea" [p. 3], f. 10. [Non Lamarck.]
1823. *Bulla hypnorum* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 433.
1826. *Physa hypnorum*, Linn. : RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 96.
1827. *Physa hypnorum*, Lam. : BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xli, f. 60 & 61.
1830. *Physa hypnorum*, Linn. : JEFFREYS, *Trans. Linn. Soc.*,  
xvi, p. 381.
1831. *Physa hypnorum*, Drap. : TURTON, *Manual*, p. 128,  
f. 113.
1831. *Nauta hypnorum* : LEACH, in Turton's *Manual*, p. 129,  
in synon.
1836. *Physa turrita* : J. de C. SOWERBY, in Richardson's *Fauna*  
*Borcali-Amer.*, iii, p. 315.

1837. *Bulinus (Aplexa) hypnorum* (L.): BECK, *Index Moll.*, p. 116.
1840. } *Aplexus hypnorum*, Linn.: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 255, pl. ix, f. 113.
- Post }  
Sept. } *Physa hypnorum*, Drapernaud: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 30, pl. xiv, f. 60 & 61.
1843. *Physa glabra*: DEKAY, *Nat. Hist. New York*, I, Zool. v, p. 80, pl. v, f. 83.
1845. } *Physa hypnorum*, Drapernaud: BROWN, *Illust. L. & F.-W.*  
Feb. } *Conch. Brit.*, p. 16, pl. iii, f. 17 & 18, & xxiv, f. 27.
1845. *Physa cornea*: MASSOT, *Bull. Soc. Agric. Pyr.-Orient.*, vi, pt. 2, p. 236, figs.
1849. *Physa Pccrisiana*: DUPUY, *Cat. Extramar. Gallie Test.* [p. 4], no. 226.
1850. *Physa subopaca*, Lamk.: DUPUY, *Hist. Moll. France*, p. 456, pl. xxii, f. 2, & pl. xxv, f. 8.
1852. } *Nauta hypnorum*, Brug.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 110.
1852. } *Physa hypnorum*, Linnæus: FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 143, pl. cxxii, f. 6 & 7.
1855. *Physa elongatina*: LEWIS, *Proc. Boston Soc. Nat. Hist.*, v, p. 122.
1856. *Physa (Nauta) hypnorum*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 455, pl. xxxiii, f. 11-15.
1857. *Aplexus hypnorum*, Linn.: GRAY, in Turton's *Manual*, new ed., p. 229, pl. ix, f. 113.
1862. *Physa hypnorum*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 96; v, pl. vi, f. 5.
1863. *Physa hypnorum*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 153, figs.
1865. *Bulinus hypnorum*, Linnæus: W. G. BINNEY, *L. & F.-W. Shells N. Amer.*, ii, p. 99, f. 170.
1867. *Physa (Bulinus) hypnorum*, L.: BRUSINA, *Rad Jugoslav. Akad.*, i, p. 102.
1888. *Physa hypnicola*, Nob.: CHATENIER, *Cat. Moll. Drôme*, p. 35.
1902. *Physa (Aplexa) hypnorum*, Lin.: WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 119.

[GERMAIN (*Moll. France*, ii, p. 249) gives as synonyms:—*Physa thermalis*, Fagot; *P. Aliziana*, Servain. WESTERLUND (*Fauna Paläarct. Region*, v, p. 58) adds *P. ataxiaca*, Fagot, considered by Germain as distinct.]

First recorded as British in 1692, by M. Lister (*Hist. Conch.*, iv, Append., pl. clix, f. 5), who states it was found at Mitcham by J. Petiver.

British Distribution in Time: Pleistocene to Recent.

(Sub-order : *STYLOMMATOPHORA*.)(Division : *Orthurethra*.)

Fam. : PUPILLIDÆ.

Genus : 1. **PYRAMIDULA**, Fitzinger.Etym. :—Lat. dimin. of *pyramis*, a pyramid.Type :—*Helix rupestris*, Drap.(*Helix*, *Zonites*, *Helicella*, vett. auctt.)

1833. *Pyramidula* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 95.
1837. *Eryomphala* [sic], subg. 4 of *Helix* [pars] : BECK, *Index Moll.*, p. 8.
1837. *Patula* [pars] : HELD, *Isis.*, xxx, hft. 12, col. 916.
1838. *Cernuella*, subg. of *Helix* [pars] : SCHLUETER, *Kurz. syst. Verzeichn.*, p. 6.
1847. *Euryomphala*, subg. of *Helix* [pars] : BECK, *Annl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.

1. **Pyramidula rupestris** (Draparnaud).Etym. : Lat. *rupes*, a rock.

- ?1789. "*Helix rupestris*. A new species" [*n. nud.*] : COXE, *Trav. in Switzerld.*, iii, p. 386. [Placed in the list between *H. aculeata*, Müll. and *H. muscorum*, Müll.]
- 1801, } *Helix rupestris* : DRAPARNAUD, *Tabl. Moll. France*,  
July. f p. 71.
- 1801, } *Helix pusilla*, Nob. : VALLOT, *Exer. Hist. Nat.*, p. 4.  
Aug. f [*Teste Druoët.*]
1803. *Helix umbilicata* : MONTAGU, *Test. Brit.*, p. 434, pl. xiii, f. 2.
- [According to Montagu (*Test. Brit.*, Suppt., p. 146) this species occurred in the Portland Collection under the name of *Helix Turboformis*.]
1805. *Helix rupestris* : DRAPARNAUD, *Hist. Moll. France*, p. 82, pl. vii, f. 7-9.
1807. *Helix umbilicata*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 200.
1813. *Helix umbilicata* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xix, f. 24.
1817. *Helix umbilicata*, Mont. : DILLWYN, *Cat. Shells*, ii, p. 915.
1819. *Zonites rupestris*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 103.
1821. *Helix (Helicella) rupestris*, Draparn. : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 44 (June ed., p. 40); *Hist.*, pl. lxxx, f. 2 & 3.

1821. *Helix saxatilis (rupestris* var.): HARTMANN, in Sturm's *Deutschl. Fauna*, vi, hft. 5, p. 52 [*n. nud.*].
1823. *Helix umbilicata*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1826. *Helicella rupestris*: RISSO, *Hist. Europ. mérid.*, iv, p. 69.
1827. *Helix umbilicata*, Mont.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 30 & 31.
1828. *Helix rupestris*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 22, pl. iv, f. 22 & 23.
1830. *Helix umbilicata*, Mont.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 342.
1831. *Helix rupestris*, Drap.: TURTON, *Manual*, p. 60, f. 45.
1831. *Zonites rupestris*: LEACH, in Turton, *Manual*, p. 60, in synon.
- 1833, }  
Feb. } *Turbo myrmecidis*: SCACCHI, *Osserv. Zool.*, i, p. 11.
1833. *Pyramidula rupestris*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 95.
1837. *Helix (Euryomphala) umbilicata*, Mtg.: BECK, *Index Moll.*, p. 9.
1837. *Helix (Euryomphala) rupestris*, Drp.: BECK, *l. c.*
1837. *Patula rupestris*, Drap.: HELD, *Isis*, xxx, hft. 12, col. 916.
1838. *Helix (Cernuella) rupestris*, m. (Dr.): SCHLUETER, *Kurz. syst. Verzeichn.*, p. 6.
- 1840, }  
Apr. } *Zonites umbilicatus*, Mont.: GRAY, Turton's *Manual*, new ed., p. 166, pl. v, f. 45.
- Post }  
Sept. } *Helix (Verticillatæ) umbilicata*: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 51, pl. xvii, f. 30 & 31.
1840. }  
1842. } *Delomphalus rupestris*: HARTMANN, *Gasteropoden*, p. 120, pl. xxxvii, f. 1-3.
1842. *Delomphalus saxatilis*: HARTMANN, *o. c.*, p. 122, pl. xxxvii, f. 4-6.
1845. *Helix (Verticillatæ) umbilicata*, Montagu: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 80, pl. viii, f. 27 & 28.
1850. *Helix (Patula) rupestris*, Drap.: ALBERS, *Heliceen*, p. 64.
- 1852, }  
Feb. } *Zonites rupestris*, Drap.: LEACH, *Moll. Brit. Synop.*, p. 74.
- 1852, }  
Mar. } *Helix umbilicata*, Montagu: FORBES & HANLEY, *Brit. Moll.*, iv, p. 81, pl. cxxi, f. 7 & 8.
- 1852, }  
Aug. } *Euryomphala rupestris*, Drap.: MÖRCH, *Cat. Conch. Yoldi*, i, p. 3.
1855. *Discus rupestris*, Drap.: H. & A. ADAMS, *Genera Moll.*, ii, p. 117.
1856. *Helix (Hygromane) rupestris*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 192, pl. xv, f. 10-13.
1857. *Helix (Delomphalus) umbilicata*, Mont.: GRAY, Turton's *Manual*, new ed., p. 143, pl. v, f. 45.
1862. *Helix rupestris*, Studer: JEFFREYS, *Brit. Conch.*, i, p. 220; v, pl. xiii, f. 6.

1863. *Helix rupestris*, Draparnaud : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 84, figs.  
 1876. *Patula (Pyramidula) rupestris*, Drap. : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 91, f. 42.  
 1887. *Helix (Pyramidula) rupestris*, Drap. : TRYON, *Manual Conch.*, Ser. II, vol. iii, p. 51, pl. ix, f. 87-90.  
 1893. *Pyramidula rupestris*, Dr. : PILSBRY, in Tryon, *Manual Conch.*, Ser. II, vol. ix, p. 44.  
 1909. *Pyramidula rupestris* (Draparnaud) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 170, pl. xix.

First recorded as British in 1803, by G. Montagu, as *Helix umbilicata*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

Genus : 2. **ABIDA** (C. Prideaux MS.), Leach.

Etym. :—Doubtful. Possibly from Abydus, or Abydos, on the Hellespont.

Genotype :—*Pupa secale*, Draparnaud.

(*Pupa*, Draparnaud et auctt., non Bolten, 1798, nec Lamarck, 1801.)

- 1813? *Odostomia* [pars] : FLEMING, *Edinb. Ency.*, vii, p. 76.  
 1816. *Chondrus* [pars] : CUVIER, *Règne Anim.*, ii, p. 408.  
 1819. *Abida*, C. Prideaux MSS. : LEACH, *Moll. Brit. Synop.* (proofs), p. 124.  
 1820. *Torquilla* [pars] : STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," p. 19.) [*Non* Brison, 1760 (Aves).]  
 1821. *Cochlodonta*, subg. 13 of *Helix* [pars] : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 62 (*June ed.*, p. 58).  
 1821. *Chondrus* [pars] : HARTMANN, *Neue Alpina*, i, p. 218. [*Non* Cuvier, 1816.]  
 1826. *Jaminia* (Leach mt.) [pars] : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 88. [*Non* Leach.]  
 1830. *Cochlichondra*, Ziegl. [pars] : JAN, *Conspéct. méthod. Test.*, p. 5.  
 1831. *Abida* : LEACH, in Turton's *Manual*, p. 101, in synonym.  
 1837. *Granaria* [pars] : HELD, *Isis*, xxx, hft. 12, col. 918.  
 1840, } *Abida*, Leach : GRAY, Turton's *Manual*, new ed.,  
 Apr. } p. 197.  
 1840, } *Pupella*, subg. of *Clausilia* [pars] : SWAINSON, *Treat. Malac.*, p. 334.  
 May. }  
 \*1843. *Stomodonta* [pars] : MERMET, *Hist. Moll. Pyrén. occid.*, p. 45.  
 1852. *Condrina*, Reichb. : MÖRCH, *Cat. Conchyl. Yoldi*, i, p. 33, as synonym. of *Torquilla*.

First recorded as British in 1803, by G. Montagu, as *Helix umbilicata*. (See ref. above.)

1. *Abida secale* (Draparnaud).Etym. :—Lat. *secale*, rye.

- ?1789. *Helix Cylindrica*, Geofr. : STUDER, in Coxe's *Trav. Switzerland.*, iii, p. 387.
1801. *Pupa secale* : DRAPARNAUD, *Tabl. Moll. France*, p. 59.
1803. *Turbo Juniperi* : MONTAGU, *Test. Brit.*, p. 340, pl. xii, f. 12.
1805. *Pupa secale* : DRAPARNAUD, *Hist. Moll. France*, p. 64, pl. iii, f. 49 & 50.
1807. *Turbo Cylindricus* : G. L. HARTMANN, *Alpina*, ii, p. 212.
1807. *Turbo Juniperi*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 182.
1813. *Turbo juniperi* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 51, pl. xix, f. 11\*.
- 1813? *Odostomia juniperi* : FLEMING, *Edinb. Ency.*, vii, p. 76.
1816. *Chondrus secale* : CUVIER, *Règne Anim.*, ii, p. 408.
1817. *Turbo Juniperi*, Mont. : DILLWYN, *Cat. Shells*, ii, p. 877.
1819. *Abida secale*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 125.
- 1820, } *Helix (Pupa) secale* : FÉRUSSAC, *Journ. Physique*, xc,  
Apr. } p. 300.
- 1820, { *Torquilla secale* : STUDER, *Naturw. Anz. Schweiz. Gesell.*,  
May. { iii, p. 89. (In reprint, "Syst. Verzeichn.,"  
p. 19.)
1821. *Helix (Cochlodonta) secale*, Drap. : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 64 (June ed., p. 60).
1821. *Chondrus secale*, Drap. : HARTMANN, *Neue Alpina*, i, p. 218.
1821. *Pupa secale*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 55, pl. iii, f. 14.
1823. *Turbo juniperi* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Jaminia secale*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 89.
1827. *Pupa frumentum*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 1.
1828. *Pupa juniperi* : FLEMING, *Brit. Anim.*, p. 268.
1830. *Pupa secale*, Drap. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 355.
1830. *Helix (Cochlicondra) secale*, Fér. : JAN, *Conspect. method. Test.*, p. 5.
1831. *Vertigo secale*, Drap. : TURTON, *Manual*, p. 101, f. 81.
1831. *Abida secale* : LEACH, in Turton's *Manual*, p. 101, in synon.
1837. *Pupa (Torquilla) secale*, Drp. : BECK, *Index Moll.*, p. 86.
1837. *Granaria secale*, Drap. : HELD, *Isis*, xxx, hft. 12, col. 918.
- 1840, } *Pupa (Abida) juniperi*, Montagu : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 197, pl. vii, f. 81.
- Post }  
Sept. } *Pupa juniperi*, Montagu : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 40, pl. xiv, f. 1.



- \*1843. *Stomodonta secale*: MERMET, *Hist. Moll. Pryén. occid.*, p. 51.
1845. *Pupa juniperi*, Montagu: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 47, pl. v, f. 9.
1848. *Torquilla similis*, Hartm. in sched.: PFEIFFER, *Mon. Helic. vivent.*, ii, p. 341.
1850. *Pupa Boileausiana*, Charpentier [MS.]: KÜSTER, in Martini, *Syst. Conch.-Cab.*, i, hft. 15, "Pupa," p. 98, pl. xiii, f. 21-23.
- 1852, } *Abida secale*, Drap.: LEACH, *Moll. Brit. Synop.*, p. 90.  
Feb. }
- 1852, } *Pupa secale*, Draparnaud: FORBES & HANLEY, *Brit. Moll.*, iv, p. 101, pl. cxxix, f. 5, as *P. juniperi*.  
Mar. }
1856. *Pupa (Torquilla) secale*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 366, pl. xxvi, f. 26-29.
1857. *Pupa (Abida) secale*, Drap.: GRAY, *Turton's Manual*, new ed., p. 165, pl. vii, f. 81.
1862. *Pupa secale*, Draparnaud: JEFFREYS, *Brit. Conch.*, i, p. 242; v, pl. xv, f. 1.
1863. *Pupa secale*, Draparnaud: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 109, figs.
1888. *Pupa secaliformis*, Nob.: CHATENIER, *Cat. Moll. Drôme*, p. 27.
1894. *Pupa secalina*, Draparnaud: LOCARD, *Coq. terrest. France*, p. 306, figs. 426-7. (Also in *Ann. Soc. Agric. Lyon*, Sér. VII, tom. iii, 1896, p. 194, figs. 426-7.)

[GERMAIN (*Moll. France*, ii, p. 178) gives as synonyms:—*Pupa Bourgetica*, Bourg.; *P. Gourdoni*[ana], Fagot; *P. Piniana*, Fagot; *P. abrupta*, West.; *P. Kraliki*, Letourn.; *P. fagorum*, Fagot; and *P. Lasallei*, Bourg. To which Pilsbry adds (*Man. Conch.*, Ser. II, vol. xxiv, pp. 311 & 314) *Pupa oryzana*, Loc.; and *P. costata*, Fagot.]

First recorded as British in 1803, by G. Montagu, as *Turbo juniperi*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

### Genus: 3. LAURIA, Gray.

Etym.:—Probably named in honour of his niece Laura Gray.

Type:—*Pupa umbilicata*, Draparnaud = *Turbo cylindraceus*, DaCosta.

(*Turbo*, *Bulinus*, *Helix*, *Odostomia*, vett. auctt.; *Pupa*, Draparnaud, non Bolten, 1798, nec Lamarek, 1801.)

1819. *Pupilla* [pars]: LEACH, *Moll. Brit. Synop.* (proofs), p. 126.



1821. *Cochlodonta*, subg. 13 of *Helix* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 62 (June ed., p. 58).
1821. *Vertigo* [pars]: FERUSSAC, *o. c.*, Jan. ed., p. 68 (June ed., p. 64).
1826. *Jaminia* (Leach mt.) [pars]: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 88.
- 1831, } *Cochlodon* (*Cochlodonta*, Fér.), subg. of *Helix* [pars]:  
June. } LOWE, *Trans. Camb. Phil. Soc.*, iv, p. 62.
1831. *Pupilla* [pars]: LEACH, in Turton's *Manual*, pp. 98 & 99, in synon.
- 1840, } *Lauria*, subg. of *Pupa*: GRAY, Turton's *Manual*, new ed.,  
Apr. } p. 193.
- 1840, } *Eruca*, subg. of *Clausilia* [pars]: SWAINSON, *Treat.*  
May. } *Malac.*, p. 334.
- \*1843. *Stomodonta* [pars]: MERMET, *Hist. Moll. Pyrén. occid.*, p. 45.
1855. *Gastrodon*, subg. of *Pupa* [pars]: LOWE, *Proc. Zool. Soc. Lond.*, 1854(-55), p. 207. [*Non Rafinesque*, 1815.]
1879. *Reinhardtia*, sect. of *Pupa*: BOETTGER, *Jahrb. Deutsch. Malak. Gesell.*, vi, p. 27.

Sub-gen.: **Lauria**, s.s. (as above).

Sub-gen.: **Leiostyla**, Lowe.

Etym.:—Gr. *λείος*, smooth + *στῦλος*, a pillar.

Type:—*Pupa vineta*, Lowe.

1852. *Leiostyla*: LOWE, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. ix, p. 276.
1852. *Alvearella*: LOWE, *t. c.*, p. 277.
1854. *Charadrobia*: ALBERS, *Malacogr. Mader*, p. 63.
1860. *Liostyla*, Lowe: MARTENS, in Albers, *Heliccen*, ed. 2, p. 293.
1909. *Caucasica*: CAZIOT & MARGIER, *Bull. Soc. Zool. France*, xxxiv, p. 141.

1. **Lauria** (s.s.) **cylindracea** (DaCosta).

Etym.:—Lat. *cylindrus*, a cylinder.

1778. *Turbo cylindraceus*: DACOSTA, *Tect. Brit.*, p. 89 (& errata), pl. v, f. 16.
1789. *Bulimus muscorum*, nob. [pars]: BRUGUIÈRE, *Encyclop. méthod.*, Vers, i, p. 334.
- 1801, } *Pupa umbilicata*: DRAPARNAUD, *Tabl. Moll. France*,  
July. } p. 58.

- 1801, } *Bulimus unidentatus*, nob. : VALLOT, *Exer. Hist. Nat.*,  
 Aug. } p. 6. [*Teste Drouet.*]
1803. *Turbo muscorum*, Lin. [pars]: MONTAGU, *Test. Brit.*,  
 p. 335, pl. xxii, f. 3.  
 [According to Montagu (*Test. Brit.*, Suppt., p. 132) this  
 species, or *P. muscorum*, occurred in the Portland  
 Collection under the name of *Turbo Dolioliforme.*]
1805. *Pupa umbilicata*: DRAPARNAUD, *Hist. Moll. France*,  
 p. 62, pl. iii, f. 39 & 40.
- 1813? *Odostomia muscorum* [pars]: FLEMING, *Edinb. Ency.*,  
 vii, p. 76.
1819. *Turbo muscorum*, Montagu: TURTON, *Conch. Dict.*,  
 p. 220.
1819. *Pupilla Draparnaudii*: LEACH, *Moll. Brit. Synop.*  
 (proofs), p. 126.
1820. *Helix (Pupa) umbilicata*, Drap.: FÉRUSSAC, *Journ.*  
*Physique*, xc, p. 300.
1821. *Helix (Cochlodonta) umbilicata*, Drap.: FÉRUSSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 63 (June ed.,  
 p. 59).
1826. *Jaminia muscorum*, Drap.: RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 88.
1826. *Jaminia marginata*, Drap.: RISSO, *t. c.*, p. 89.  
 [Both Bourguignat and Caziot are agreed that the two  
 forms thus designated by Risso in reality belong to  
 this species.]
1827. *Pupa marginata*, Pfeiffer: BROWN, *Illust. Conch. Brit.*,  
 ed. 1, pl. xli, f. 5.
1828. *Pupa muscorum*: FLEMING, *Brit. Anim.*, p. 268. [*Non*  
*Linné, nec Müller.*]
1830. *Pupa umbilicata*, Drap.: JEFFREYS, *Trans. Linn. Soc.*,  
 xvi, p. 356.
1831. *Helix (Cochlodon) anconostoma*, Prod. MS.: LOWE, *Trans.*  
*Camb. Phil. Soc.*, iv, p. 62, pl. vi, f. 30.
1831. *Pupa umbilicata*, Drap.: TURTON, *Manual*, p. 97, f.  
 78.
1831. *Pupilla Draparnaudii*: LEACH, in Turton's *Manual*,  
 p. 98, in synonym.
1835. *Pupa ombilicata* [err. typ.]: GOUPIL, *Hist. Moll. Sarthe*,  
 p. 37.
1837. *Pupa (Pupilla) umbilicata*, Dyp.: BECK, *Index Moll.*,  
 p. 84.
1837. *Pupa Scmpronii*, mihi: CHARPENTIER, *Neue Denkschr.*  
*Allg. Schweiz. Gesell.*, i [no. 2], p. 15, pl. ii,  
 f. 4.
- 1840, } *Pupa (Lauria) umbilicata*, Drap.: GRAY, Turton's  
 Apr. } *Manual*, new ed., p. 193, pl. vii, f. 78.
- 1840, } *Clausilia (Erica) umbilicata*, Drap.: SWAINSON, *Treat.*  
 May. } *Malac.*, p. 334.

- Post }  
Sept. } *Pupa umbilicata*, Draparnaud : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 40, pl. xiv, f. 5.
- \*1843. *Stomodonta umbilicata*, nob. : MERMET, *Hist. Moll. Pyrén. occid.*, p. 53.
1845. *Pupa umbilicata*, Draparnaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 45, pl. v, f. 6.
- 1847? *Pupa cylindracea*, Moq. : MOQUIN-TANDON, *Actes Soc. Linn. Bordeaux*, xv, p. 269.
- 1852, } *Pupilla Draparnaudii* : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 91.
- 1852, } *Pupa umbilicata*, Draparnaud : FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 95, pl. cxxix, f. 7.
- 1852, } *Pupula umbilicata*, Drp. : MÖRCH, *Cat. Conch. Yoldi*,  
Aug. } i, p. 34.
1855. *Pupa (Gastrodon) umbilicata*, Drap. : LOWE, *Proc. Zool. Lond.*, 1854 (-55), p. 207.
1855. *Pupa (Gastrodon) anconostoma* : LOWE, *t. c.*, p. 208.
1856. *Pupa (Odostomia) cylindracea*, DaCosta : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 390, pl. xxvii, f. 42 & 43, xxviii, f. 1-4.
1857. *Pupa (Lauria) cylindracea*, DaCosta : GRAY, *Turton's Manual*, new ed., p. 161, f. 43, pl. vii, f. 78.
1860. *Pupa Blakei*, Shuttl. [MS.] : MARTENS, in *Albers, Heliceen*, ed. 2, p. 354 (index).
1862. *Pupa umbilicata*, Draparnaud : JEFFREYS, *Brit. Conch.*, i, p. 246 ; v, pl. xv, f. 3.
1863. *Pupa cylindracea*, DaCosta : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 111, figs.
1869. *Pupilla umbilicata*, Drap. : FRAUENFELD, *Verhandl. zool.-bot. Gesell. Wien*, xix, p. 875.
1871. *Pupa (Pupilla) cylindracea*, DaC. : WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 82.
1879. *Pupa (Reinhardtia) cylindracea*, DaCosta : BOETTGER, *Jahrb. Deutsch. Malak. Gesell.*, vi, p. 27.
1887. *Odostomia cylindracea*, DaCosta : CLESSIN, *Moll. Fauna Oesterr.-Ungarns*, p. 251.
1902. *Lauria cylindracea*, DaC. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 105.
1913. *Pupilla (Lauria) cylindracea* : GERMAIN, *Moll. France*, ii, p. 186.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 6).

British Distribution in Time : Pliocene to Recent.

## 2. *Lauria (Leiostyla) anglica* (Férussac).

Etym. :—Lat. *anglicus*, English.

1821. *Vertigo anglica*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 68 (June ed., p. 64).

1828. *Turbo Anglicus*: WOOD, *Index Test.*, Suppt., p. 19, pl. vi, f. 12.
1828. *Pupa Anglicus*: WOOD, *o. c.*, p. 50; a correction of the preceding.
1830. *Pupa ringens*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 356.
1831. *Pupa tridentalis*, nobis: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 61, pl. xv, f. 28-30.  
[Kreglinger makes this a synonym of *P. triplicata*, Studer.]
1831. *Vertigo Anglica*, DeFér.: TURTON, *Manual*, p. 102, f. 82.
- 1840, } *Pupa (Lauria) anglica*, Férussac: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 195, pl. vii, f. 82.
- Post } *Pupa anglica*, Potiez & Michaud: BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 40, pl. xviii, f. 35 & 36.
1840. } *Pupa anglica*, Potiez & Michaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 46, pl. v, f. 7 & 8.
- \*1843. *Stomodonta ringens*, nob.: MERMET, *Hist. Moll. Pyrén. occid.*, p. 51.
1845. *Pupa anglica*, Potiez & Michaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 46, pl. v, f. 7 & 8.
1850. *Pupa (Vertigo) anglica*, Pfr.: ALBERS, *Heliccen*, p. 206.
1852. *Pupa Anglica*, Férussac: FORBES & HANLEY, *Brit. Moll.*, iv, p. 99, pl. cxxix, f. 6.
- 1855, } *Pupa (Leiostylia) anglica*, Fér: LOWE, *Proc. Zool. Soc.*  
Mar. } *London*, 1854 (-55), p. 208.
- 1855, } *Pupa (Pupilla) Anglica*, Férus.: H. & A. ADAMS, *Genera*  
Apr. } *Moll.*, ii, p. 169.
1856. *Vertigo (Isthmia) anglica*, Fér.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 404, pl. xxviii, f. 34-36.
1857. *Pupa (Lauria) anglica*, Férussac: GRAY, Turton's *Manual*, new ed., p. 163, pl. vii, f. 82.
1860. *Pupa (Charadrobia) anglica*, Fér.: MARTENS, in Albers, *Heliccen*, ed. 2, p. 293.
1862. *Pupa ringens*, Jeffreys: JEFFREYS, *Brit. Conch.*, i, p. 244; v, pl. xv, f. 2.
1863. *Pupa anglica*, Férussac: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 112, figs.
1878. *Pupa (Liostyla) anglica*: WOLLASTON, *Test. Atlant.*, p. 213.
1904. *Lauria anglica*, Fér.: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 221.

First recorded as British in 1821, by Férussac, as *Vertigo anglica*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

Genus: 4. **PUPILLA**, Leach.

Etym.:—Lat. dimin. of *pupa*, a doll, or child in swaddling clothes.

Type:—*Turbo muscorum*, Linné. (Selected by Gray in 1847.)  
(*Turbo*, *Bulimus*, vett. auctt.; *Pupa*, Draparnaud et auctt.,  
non Bolten, 1798, nec Lamarck, 1801.)

- 1813? *Odostomia* [pars]: FLEMING, *Edinb. Ency.*, vii, p. 76.  
1815. *Volvulus* [pars]: OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
p. 313.  
1819. *Pupilla*: LEACH, *Moll. Brit. Synop.* (proofs), p. 126.  
1821. *Cochlodonta*, subg. 13 of *Helix* [pars]: FÉRUSSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 62 (June ed.,  
p. 58).  
1824. *Puppa*, [sect.] β: BLAINVILLE, *Dict. Sci. Nat.*, xxxii,  
p. 251.  
1826. *Jaminia* (Leach mt.) [pars]: RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 88.  
1828. *Pupilla*, Leach [MS.]: FLEMING, *Brit. Anim.*, p. 268,  
in text.  
1830. *Alæa* [pars]: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 357.  
1831. *Pupilla*: LEACH, in Turton's *Manual*, p. 98, in synonym.  
1837. *Torquatella*: HELD, *Isis*, xxx, hft. 12, col. 919.  
1840. *Eruca*, subg. of *Clausilia* [pars]: SWAINSON, *Treat.*  
*Malac.*, p. 334.  
\*1843. *Stomodonta* [pars]: MERMET, *Hist. Moll. Pyrén. occid.*,  
p. 53.

1. **Pupilla muscorum** (Linné).

Etym.:—Lat. gen. pl. *muscorum*, inhabiting mosses.

1758. *Turbo muscorum*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 767,  
no. 568.  
1767. *Turbo muscorum*: LINNÆUS, *o. c.*, ed. 12, p. 1240, no. 650.  
[The identity of Linné's species rests on tradition.  
Westerlund (*Fauna Moll. Sveciæ*, i, p. 245) has  
argued that Linné's species was identical with the  
*Bulimus avenaceus* of Bruguière.]  
1767. *Cochlea muscorum*, Linn.: GEOFFROY, *Traité Coq. Paris*,  
p. 58.  
1774. *Helix muscorum*: MÜLLER, *Verm. Hist.*, ii, p. 105.  
?1778. *Turbo cylindraccus* [pars]: DACOSTA, *Test. Brit.*,  
p. 89.  
1789. *Bulimus muscorum*, nob. [pars]: BRUGUIÈRE, *Encyclop.*  
*méthod.*, Vers, i, p. 334.  
1791. *Turbo muscorum*: GMELIN, in *Linn. Syst. Nat.*, ed. 13  
i, pt. 6, p. 3611, no. 94.  
1799. *Turbo muscorum*: PULTENEY, *Cat. Dorset.*, p. 46.

- 1801, }  
Apr. } *Bulimus muscorum*, Linn. : POIRET, *Coq. Aisne*, p. 51.
- 1801, }  
July. } *Pupa marginata* : DRAPARNAUD, *Tabl. Moll. France*,  
p. 58.
1803. *Turbo muscorum*, Linn. [var] : MONTAGU, *Test. Brit.*,  
p. 336.  
[According to Montagu (*Test Brit.*, Suppt., p. 132) this  
species, or *Lauria cylindracea*, occurred in the Port-  
land Collection under the name of *Turbo Dolioli-*  
*forme.*]
1805. *Pupa marginata* : DRAPARNAUD, *Hist. Moll. France*, p. 61,  
pl. iii, f. 36-38.
1807. *Turbo muscorum*, Linn. : MATON & RACKETT, *Trans.*  
*Linn. Soc.*, viii, p. 182.
1813. *Turbo muscorum* : RACKETT, in Pulteney, *Cat. Dorset.*,  
ed. 2, p. 51, pl. xxi, f. 16.
- 1813? *Odostomia muscorum* [pars] : FLEMING, *Edinb. Ency.*,  
vii, p. 76.
1815. *Volvulus muscorum* : OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
p. 313.
1817. *Turbo muscorum*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 878.
1819. *Pupilla marginata*, Drap. : LEACH, *Moll. Brit. Synop.*  
(proofs), p. 127.
1819. *Turbo chrysalis* : TURTON, *Conch. Dict.*, p. 220.
1820. *Helix (Pupa) muscorum*, Mull. : FÉRUSSAC, *Journ.*  
*Physique*, xc, p. 300.
1821. *Helix (Cochlodonta) muscorum*, Linné : FÉRUSSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 63 (June ed.,  
p. 59).
1821. *Pupa muscorum*, Linn. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 57, pl. iii, f. 17 & 18.
1821. *Pupa unidentata* : C. PFEIFFER, *t. c.*, p. 58, pl. iii, f. 19  
& 20.
1821. *Pupa bidentata* : C. PFEIFFER, *t. c.*, p. 59, pl. iii, f. 21 & 22.
1821. *Pupa marginata*, Drap. : C. PFEIFFER, *t. c.*, p. 59, pl. iii,  
f. 23 & 24.
1823. *Turbo marginatus* : SHEPPARD, *Trans. Linn. Soc.*, xiv,  
p. 154.
1826. [*Jaminia marginata*, Drap. : RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 89. According to Caziot =  
*P. umbilicata*, Drap.]
1828. *Pupilla marginata* [Leach MS.] : FLEMING, *Brit. Anim.*,  
p. 268, in text.
1830. *Alwa marginata*, Drap. : JEFFREYS, *Trans. Linn. Soc.*,  
xvi, p. 357.
1831. *Pupa marginata*, Drap. : TURTON, *Manual*, p. 98, f. 79.
1831. *Pupilla marginata* : LEACH, in Turton's *Manual*, p. 99,  
in synonym.
1833. *Turbo Callicratis* : SCACCHI, *Osserv. Zool.*, i, p. 11.



1837. *Pupa (Pupilla) muscorum* (L.) Lm. : BECK, *Index Moll.*, p. 84.
1837. *Torquatella muscorum*, L. : HELD, *Isis*, xxx, hft. 12, col. 919.
1839. *Pupa bigranata*, Rossm. : ROSSMÄSSLER, *Icon.* (Bd. ii, hft. 3, 4), Hft. 9, 10, p. 27, f. 645.
- 1840, } *Pupa (Pupilla) marginata*, Drap. : GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 196, pl. vii, f. 79.
- 1840, } *Clausilia (Eruca) muscorum* : SWAINSON, *Treat. Malac.*,  
May. } p. 334. [Cites Drap., pl. iii, f. 36-38 =  
*P. marginata*, Drap.]
- 1840, } *Pupa badia* : C. B. ADAMS, *Boston Journ. Nat. Hist.*,  
July. } iii, p. 331, pl. iii, f. 18.
- Post } *Pupa marginata*, Drapernaud : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 39, pl. xviii, f. 33 & 34.
1840. }  
\*1843. *Stomodonta marginata*, nob. : MERMET, *Hist. Moll. Pyrén. occid.*, p. 53.
1841. *Pupa aridula*, Held [MS.] : KUESTER in Martini, *Syst. Conch.-Cab.*, i, hft. 15, "Pupa," p. 14, pl. ii, f. 8.
1845. *Pupa marginata*, Drapernaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 44, pl. v, f. 4 & 5.
- 1852, } *Pupilla marginata*, Drap. : LEACH, *Moll. Brit., Synop.*,  
Feb. } p. 92.
- 1852, } *Pupa muscorum*, Linnæus : FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 97, pl. cxxix, f. 8 & 9.
1855. *Pupa (Pupilla) aridula*, Held : H. & A. ADAMS, *Genera Moll.*, ii, p. 169.
1856. *Pupa (Odostomia) muscorum*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 392, pl. xxviii, f. 5-15.
1857. *Pupa (Pupilla) muscorum*, Linn. : GRAY, *Turton's Manual*, new ed., p. 164, f. 44, pl. vii, f. 49.
1862. *Pupa marginata*, Drapernaud : JEFFREYS, *Brit. Conch.*, i, p. 249; v, pl. xv, f. 4.
1863. *Pupa muscorum*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 110, figs.
1864. *Pupilla badia*, Adams : MORSE, *Journ. Portland Soc. Nat. Hist.*, i, p. 37, figs. 89, 91 & 92.
1866. *Pupa masclaryana* : PALADILHE, *Rev. & Mag. Zool.*, Sér. II, tom. xviii, p. 89, pl. xiii, f. 1-3. (Also in reprint, fasc. 1, p. 11, pl. i, f. 1-3.)
1889. *Pupilla muscorum* (Müll.) : BOETTGER, *Jahrb. Nassau. Ver. Naturk.*, xlii, p. 263.
1894. *Pupilla simplex*, Locard : LOCARD, *Coq. Terrest. France*, p. 329. (Also in *Ann. Soc. Agric. Lyon*, Sér. VII, tom. iii, 1896, p. 217.)



1894. *Pupilla Saliniensis*, Brgt. in coll. : LOCARD, *o. c.* (Also in *Ann. Soc. Agric. Lyon*, Sér. VII, tom. iii, 1896, p. 217.)
1906. *Jaminia triplicata*, Studer : CHASTER, *Journ. of Conch.*, xi, p. 319. [*Non* Studer = var. *glis*, Westerld.]
- First recorded as British in 1803, by G. Montagu, as *Turbo muscorum*. (See ref. above.)
- British Distribution in Time : Pliocene to Recent.

## Fam. : VERTIGINIDÆ.

## Genus : 1. VERTIGO, Müller.

Etym. :—Lat. *vertigo*, a turning round.

Genotype :—*Vertigo pusilla*, Müller.

(*Helix*, *Turbo*, *Odostomia*, vett. auctt.; *Pupa*, Draparnaud, non Bolten, 1798, nec Lamarck, 1801.)

1774. *Vertigo* : MÜLLER, *Verm. Hist.*, ii, p. 124.
1821. *Isthmia*, subg. of *Helix* : GRAY, *Lond. Med. Repos.*, xv, p. 239.
1830. *Alæa* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 357.
1840. *Pupella*, subg. of *Clausilia* [pars] : SWAINSON, *Treat. Malac.*, p. 334.
- \*1843. *Stomodonta* [pars] : MERMET, *Hist. Moll. Pyrén. occid.*, p. 45.
1855. *Craticula*, subg. 5 of *Pupa* [pars] : LOWE, *Proc. Zool. Soc. Lond.*, 1854, p. 211 (1855).
1855. *Staurodon*, subg. 9 of *Pupa* [pars] : LOWE, *t. c.*, p. 214. [*Non Staurodon*, Lowe, 1852.]
1864. *Dexiogyra*, mihi, sect. of *Vertigo* : STABILE, *Atti Soc. Ital. Sci. Nat. Milano*, vii, p. 104.
1870. *Dexiogira*, Stab. : BETTA, *Atti Accad. Agric. Verona*, xlvii, 1868 (1870), mem., p. 83.
1892. *Nearctula*, subg. of *Vertigo* : STERKI, *Nautilus*, vi, p. 5.
1908. *Haplopupa*, sect. of *Vertigo* : PILSBRY, *Nautilus*, xi, p. 119.

Sub-gen. : *Vertigo*, s.s. (as above).

Sub-gen. : *Vertilla*, Moquin-Tandon.

Etym. :—Apparently a diminutive founded on the Lat. root *vert-*, to turn.

Type :—*Vertigo angustior*, Jeffreys.

1856. *Vertilla*, subg. of *Vertigo* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 408.

1. *Vertigo* (s.s.) *pusilla*, Müller.Etym. :—Lat. *pusillus*, very small.

1774. *Vertigo pusilla* : MÜLLER, *Verm. Hist.*, ii, p. 124.  
 1791. *Helix vertigo* : GMELIN in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3664.  
 1801. *Pupa vertigo* : DRAPARNAUD, *Tabl. Moll. France*, p. 57.  
 1803. *Turbo vertigo* : MONTAGU, *Test. Brit.*, p. 363, pl. xii, f. 6.  
 1805. *Pupa vertigo* : DRAPARNAUD, *Hist. Moll. France*, p. 61, pl. iii, f. 34 & 35.  
 1807. *Turbo vertigo* [pars] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 183.  
 1813? *Odostomia vertigo* : FLEMING, *Edinb. Ency.*, vii, p. 77.  
 1817. *Turbo vertigo*, Mont. : DILLWYN, *Cat. Shells*, ii, p. 880.  
 1819. *Vertigo heterostropha* : LEACH, *Moll. Brit. Synop.* (proofs), p. 130.  
 1821. *Pupa vertigo*, var.  $\beta$  : HARTMANN, *Neue Alpina*, i, p. 219.  
 1821. *Vertigo pusilla*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 72, pl. iii, f. 45 & 46.  
 1830. *Vertigo pusilla*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 361.  
 1831. *Vertigo heterostropha*, Leach : TURTON, *Manual*, p. 105, f. 86.  
 1831. *Vertigo heterostropha* : LEACH, in *Turton's Manual*, p. 105, in synonym.  
 1837. *Vertigo vertigo* : ALERON, *Bull. Soc. Philom. Perpignan*, iii, p. 92.  
 1840, } *Vertigo (Vertigo) pusilla*, Müller : GRAY, *Turton's Manual*,  
 Apr. } new ed., p. 205, pl. vii, f. 86.  
 1840, } *Clausilia (Pupella) vertigo* : SWAINSON, *Treat. Malac.*,  
 May. } p. 334. [Cites "*Bow. Conch.*, 8, f. 35,"  
 which is *Pupa vertigo*, Drap.]  
 Post } *Vertigo pusilla*, Müller : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 42, pl. xviii, f. 41.  
 1840. }  
 1842. *Pupa pusilla*, Müll. : PFEIFFER, *Symbol. Helic.*, ii, p. 128.  
 1845. *Vertigo pusilla*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 51, pl. v, f. 16.  
 1847. *Pupa (Vertigo) pusilla*, Müller : BECK, *Amtl. Ber. 24. Versamml. Deutsch. Naturf.*, p. 122.  
 1852, } *Vertigo heterostropha* : LEACH, *Moll. Brit. Synop.*,  
 Feb. } p. 94.  
 1852, } *Pupa pusilla*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
 Mar. } iv, p. 111, pl. cxxx, f. 6.  
 1856. *Vertigo (Vertilla) pusilla*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 409, pl. xxix, f. 12-14.  
 1857. *Vertigo (Vertigo) pusilla*, Müller : GRAY, *Turton's Manual* new ed., p. 173, pl. vii, f. 86.

1862. *Vertigo pusilla*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 263 ;  
v, pl. xvi, f. 3.
1863. *Vertigo pusilla*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 120, figs.
1867. *Vertigo tumida*, nov. sp. : WESTERLUND, *Malak. Blätt.*,  
xiv, p. 203.
1871. *Pupa (Vertigo) tumida*, Westerl. : WESTERLUND, *Nova Acta Acad. Sci. Upsala*, Ser. III, vol. viii,  
no. 1, p. 99.
1881. *Pupa (Vertigo) tumida*, West. : KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 72.

First recorded as British in 1803, by G. Montagu (See ref. above), as *Turbo vertigo*.

British Distribution in Time : Pleistocene to Recent.

## 2. *Vertigo* (s.s.) *antivertigo* (Draparnaud).

Etym. :—Gr. ἀντί, opposed to + Lat. *vertigo*, a turning round.

1789. *Vertigo sexdentatus*, n. sp. : STUDER in COXE's *Trav. in Switzerld.*, iii, p. 388. [*Nom. nud.*]
1801. *Pupa antivertigo* : DRAPARNAUD, *Tabl. Moll. France*,  
p. 57.
1803. *Turbo sexdentatus* : MONTAGU, *Test. Brit.*, p. 337, pl. xii,  
f. 8.
1805. *Pupa antivertigo* : DRAPARNAUD, *Hist. Moll. France*,  
p. 60, pl. iii, f. 32 & 33.
1807. *Vertigo 6-Dentata* [var.] *dextra* : FÉRUSSAC, *Essai méthod. Conchyliol.*, p. 124, in table.
1807. *Turbo sexdentatus* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 183.
1813. *Turbo sexdentatus* : RACKETT, in Pulteney, *Cat. Dorset.*,  
ed. 2, p. 52, pl. xix, f. 12\*.
- 1813? *Odostomia sexdentata* : FLEMING, *Edinb. Ency.*, vii, p. 76.
1817. *Turbo sexdentatus*, Mont. : DILLWYN, *Cat. Shells*, ii,  
p. 879.
1819. *Vertigo palustris* : LEACH, *Moll. Brit. Synop.* (proofs),  
p. 128.
1820. *Vertigo 8-dentata* : STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," p. 21.)
1821. *Vertigo septemdentata*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 68 (June ed., p. 64).
1821. *Pupa vertigo*, var.  $\alpha$  &  $\gamma$  : HARTMANN, *Neue Alpina*,  
i, p. 219.
1821. *Vertigo sexdentata*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 71, pl. iii, f. 43 & 44.
1823. *Pupa sexdentata* : FLEMING, *Brit. Anim.*, p. 268.
1830. *Alca palustris*, Leach MS. : JEFFREYS, *Trans. Linn. Soc.*,  
xvi, p. 360.

1831. *Vertigo antivertigo* : MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 72.
1831. *Vertigo palustris*, Leach : TURTON, *Manual*, p. 104, f. 85.
1831. *Vertigo palustris* : LEACH, in Turton's *Manual*, p. 104, in synon.
1837. *Pupa (Alæa) antivertigo*, Drp. : BECK, *Index Moll.*, p. 85.
- 1840, } *Vertigo (Isthmia) palustris*, Leach : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 204, pl. vii, f. 85.
- Post } *Vertigo palustris*, Leach : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 41, pl. xviii, f. 39.
1840. }
- \*1843. *Stomodonta antivertigo* : MERMET, *Hist. Moll. Pyrén. occid.*, p. 54.
1845. *Vertigo palustris*, Leach : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 50, pl. v, f. 14.
1847. *Pupa (Pupilla) sexdentata*, Pf. : BECK, *Aml. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.
1847. *Pupa (Alæa) antivertigo*, Dr. : BECK, *l. c.*
1847. *Pupa (Alæa) septedentata*, Fér. : BECK, *l. c.*
- 1847, } *Vertigo (Alæa) palustris* : GRAY, *Proc. Zool. Soc. Lond.*,  
Nov. } 1847, p. 176.
1850. *Pupa (Vertigo) antivertigo*, Drp. : ALBERS, *Heliceen*, p. 206.
- 1852, } *Vertigo palustris* : LEACH, *Moll. Brit. Synop.*, p. 93,  
Feb. } pl. viii, f. 10.
- 1852, } *Pupa antivertigo*, Draparnaud : FORBES & HANLEY,  
Mar. } *Brit. Moll.*, iv, p. 109, pl. cxxx, f. 7.
1855. *Vertigo (Alæa) antivertigo*, Drap. : H. & A. ADAMS, *Genera Moll.*, ii, p. 172.
1856. *Vertigo (Isthmia) antivertigo*, Drap. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 407, pl. xxix, f. 4-7.
1857. *Vertigo (Isthmia) antivertigo*, Drap. : GRAY, Turton's *Manual*, new ed., p. 172, pl. vii, f. 85.
1862. *Vertigo antivertigo*, Draparnaud : JEFFREYS, *Brit. Conch.*, i, p. 253 ; v, pl. xv, f. 5.
1863. *Vertigo antivertigo*, Draparnaud : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 116, figs.
1864. *Vertigo (Dexiogyra) antivertigo*, Drap. : STABILE, *Atti Soc. Ital. Sci. Nat.*, vii, p. 105.
1870. *Vertigo (Dexiogyra) antivertigo*, Drap. : BETTA, *Atti Accad. Agric. Verona*, xlvii, mem. p. 83.

[GERMAIN (*Moll. France*, ii, p. 188) says that *Vertigo Baudoni*, Massot, is a synonym.]

First recorded as British in 1803, by G. Montagu, as *Turbo sexdentatus*. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

3. *Vertigo* (s.s.) *substriata* (Jeffreys).

Etym. :—Lat. *sub* + *striatus*, slightly striate.

1830. *Pupa sexdentata* : ALDER, *Trans. Nat. Hist. Soc. Northumb.*, i, p. 34. [*Teste* Alder, *Trans. Tyneside Nats. Club*, i, p. 134. Non Fleming, 1828 = *V. antivertigo*.]
1831. *Vertigo sexdentata*, Mont. : TURTON, *Manual*, p. 103, f. 84. [*Non* Montagu, *nec* Alder, from whom he received the specimens.]
1833. *Alæa substriata* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 515.  
[Jeffreys (p. 516) refers the 4-5-dentata of Studer's "Verzeichniss" to this species: we consider it to be *V. pygmæa*.]
- 1837, } *Vertigo substriata* : ALDER, *Mag. Zool. Bot.*, ii, p. 112.  
Aug. }
- 1837, } *Vertigo curta*, mihi : HELD, *Isis*, xxx, hft. 12, col. 304.  
Dec. } [*Teste* Kreglinger.]
1838. *Pupa substriata* : ALDER, *Trans. Nat. Hist. Soc. Northumb.*, ii, p. 339.
1840. *Vertigo (Isthmia) substriata*, Jeffreys : GRAY, *Turton's Manual*, new ed., p. 202, pl. vii, f. 84.
1852. *Pupa substriata*, Jeffreys : FORBES & HANLEY, *Brit. Moll.*, iv, p. 108, pl. cxxx, f. 3.
- 1855, } *Pupa (Craticula) substriata*, Jeff. : LOWE, *Proc. Zool. Soc. Lond.*, 1854 (-55), p. 211.  
Mar. }
- 1855, } *Vertigo (Alæa) substriata*, Jeffr. : H. & A. ADAMS, *Genera Moll.*, ii, p. 172.  
Apr. }
1856. *Pupa (Vertigo) substriata*, Jeffr. : PFEIFFER, *Malak. Blätt.*, ii, p. 177.
1857. *Vertigo (Isthmia) substriata*, Jeffreys : GRAY, *Turton's Manual*, new ed., p. 171, pl. vii, f. 84.
1860. *Pupa (Vertigo) substriata*, Jeffreys : MARTENS, in Albers, *Heliceen*, ed. 2, p. 292.
1862. *Vertigo substriata*, Jeffreys : JEFFREYS, *Brit. Conch.*, i, p. 261; v, pl. xvi, f. 2.
1863. *Vertigo striata* : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 119, figs.
1887. *Pupa (Alæa) substriata*, Jeffr. : WESTERLUND, *Fauna Palæarct. Region*, iii, p. 139.

First recorded as British in 1830, by J. Alder, as *Pupa sexdentata*. (*See* ref. above.)

British Distribution in Time : Pleistocene to Recent.

4. *Vertigo* (s.s.) *pygmæa* (Draparnaud).

Etym. :—Lat. *pygmæus*, a pigmy.

1789. *Vertigo 5-dentata*, n. sp. : STUDER, in Coxe's *Trav. in Switzerld.*, iii, p. 388. [*Nom. nud.*]

1801. *Pupa pygmæa* : DRAPARNAUD, *Tabl. Moll. France*, p. 57.  
 1803. *Turbo sexdentatus* [juv.] : MONTAGU, *Test. Brit.*, p. 337.  
 1805. *Pupa pygmæa* : DRAPARNAUD, *Hist. Moll. France*, p. 60,  
 pl. iii, f. 30 & 31.  
 1807. *Vertigo pygmea* [sic] : FÉRUSSAC, *Essai méthod. Conchyliol.*,  
 p. 124.  
 1819. *Vertigo vulgaris* : LEACH, *Moll. Brit. Synop.* (proofs),  
 p. 129.  
 1820. *Vertigo 4- et 5-dentata* : STUDER, *Naturw. Anz. Schweiz.*  
*Gesell.*, iii, p. 89. (In reprint, "Syst.  
 Verzeichn.," p. 21.)  
 1821. *Vertigo similis*, Nobis : { FÉRUSSAC, *Tabl. syst. Limaçons*,  
 1821. *Vertigo pygmæa*, Drap. : { Jan. ed., p. 68 (June ed.,  
 p. 64.)  
 1821. *Helix Isthmia cylindrica* : GRAY, *Lond. Med. Repos.*, xv,  
 p. 239.  
 1821. *Pupa pygmea* [sic] : HARTMANN, *Noue Alpina*, i, p. 219.  
 1821. *Vertigo pygmæa*, Drap. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 72, pl. iii, f. 47 & 48.  
 1823. *Turbo sexdentatus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.  
 1827. *Pupa sexdentata*, BROWN'S MSS. : BROWN, *Illust. Conch.*  
*Brit.*, ed. 1, pl. xli, f. 8.  
 1830. *Alæa vulgaris*, Leach MS. : JEFFREYS, *Trans. Linn. Soc.*,  
 xvi, p. 359.  
 1831. *Vertigo pygmæa*, Drap. : TURTON, *Manual*, p. 103, f. 83.  
 1831. *Vertigo vulgaris* : LEACH, in Turton's *Manual*, p. 103,  
 in synon.  
 1837. *Pupa (Alæa) pygmæa*, Drp. : BECK, *Index Moll.*, p. 85.  
 1840. } *Vertigo (Isthmia) pygmæa*, Drap. : GRAY, Turton's  
 Apr. } *Manual*, new ed., p. 201, pl. vii, f. 83.  
 Post } *Vertigo pygmæa*, FÉRUSSAC : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 41, pl. xviii, f. 37.  
 1840. }  
 Post } *Vertigo sexdentata*, Turton : BROWN, *o. c.*, p. 41, pl. xiv,  
 Sept. } f. 8.  
 1840. }  
 \*1843. *Stomodonta pygmæa*, nob. : MERMET, *Hist. Moll. Pyrén.*  
*occid.*, p. 55.  
 1845. *Vertigo pygmæa*, FÉRUSSAC : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 48, pl. v, f. 11.  
 1845. *Vertigo sexdentata*, Turton : BROWN, *o. c.*, p. 49, pl. v,  
 f. 13.  
 1850. *Pupa (Vertigo) pygmæa*, Drp. : ALBERS, *Heliceen*, p. 206.  
 1852, } *Vertigo vulgaris* : LEACH, *Moll. Brit. Synop.*, p. 93.  
 Feb. }  
 1852, } *Pupa pygmæa*, Draparnaud : FORBES & HANLEY, *Brit.*  
 Mar. } *Moll.*, iv, p. 106, pl. cxxx, f. 4 & 5.  
 1855, } *Pupa (Staurodon) pygmæa*, Drap. : LOWE, *Proc. Zool.*  
 Mar. } *Soc. Lond.*, 1854, p. 214.



- 1855, } *Vertigo (Alæa) pygmæa*, Drap. : H. & A. ADAMS, *Genera*  
Apr. } *Moll.*, ii, p. 172.
1856. *Vertigo (Isthmia) pygmæa*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 405, pl. xxviii,  
f. 37-42.
1857. *Vertigo (Isthmia) pygmæa*, Drap. : GRAY, *Turton's*  
*Manual*, new ed., p. 170, pl. vii, f. 83.
1862. *Vertigo pygmæa*, Draparnaud : JEFFREYS, *Brit. Conch.*,  
i, p. 257 ; v, pl. xv, f. 7.
1863. *Vertigo pygmæa*, Draparnaud : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 118, figs.
1864. *Vertigo (Dexiogyra) pygmæa*, Drap. : STABILE, *Atti Soc.*  
*Ital. Sci. Nat.*, vii, p. 105.
1870. *Vertigo (Dexiogyra) pygmæa*, Drap. : BETTA, *Atti Accad.*  
*Agric. Verona*, xlvii, mem., p. 83.
1887. *Pupa (Alæa) pygmæa*, Dip. : WESTERLUND, *Fauna*  
*Paläarct. Region*, iii, p. 137.
1903. *Vertigo heldi*, Clessin : TOMLIN, *Journ. of Conch.*, x,  
p. 307. [Non Clessin.]

First recorded as British in 1803, by G. Montagu, as  
*Turbo scindentatus* young. (See ref. above.)  
British Distribution in Time : Pleistocene to Recent.

5. †*Vertigo* (s.s.) **parcedentata** (Al. Braun).

Etym. :—Lat. *parce* + *dentatus*, sparingly toothed.

1843. *Pupa* s. *Vertigo parcedentata*, mihi : AL. BRAUN, *Amtl.*  
*Ber. 20. Versamml. Gesell. Deutsch. Naturf.*,  
1842 (1843), p. 143. [N. nud.]
1847. *Pupa parcedentata*, mihi : AL. BRAUN, *Neucs Jahrb.*,  
1847, p. 51.
1856. *Pupa (Vertigo) Genesii*, Gredler, n. sp. : GREDLER,  
*Verhandl. zool.-bot. Ver. Wien*, vi, *Abhandl.*,  
p. 122, f. 3. [By some this is considered to  
be a variety of *parcedentata*, but this seems  
open to doubt, so all further references to  
*genesii* are omitted.]
1875. *Pupa (Pupilla) parcedentata*, A. Braun : SANDBERGER,  
*Land.- & Süssw.-Conch. Vorwelt*, p. 876,  
pl. xxxvi, f. 25.
1889. *Vertigo (Alæa) parcedentata* (Al. Braun) : BOETTGER,  
*Jahrb. Nassau. Ver. Naturk.*, *Jahrg.*, xlii,  
p. 308.
- 1891, } *Vertigo pygmæa*, var. *concinna* [n. var.] : SCOTT, *Proc.*  
early. } *Roy. Phys. Soc. Edinb.*, x, p. 335 footnote.
- 1891, } *Vertigo concinna* : SCOTT, *Scott. Natural.*, N.S. v, p. 53,  
Apr. } pl. i.
- 1891, } *Vertigo leuencensis* : SCOTT, *t. c.*, p. 141.  
July. }



?1911. *Vertigo Martini*: SAYN, *Ann. Soc. Linn. Lyon*, lviii, p. 246.

First recorded as British in 1891, by T. Scott, as *V. pygmæa*, var. *concinna*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

6. *Vertigo* (s.s.) *moulinsiana* (Dupuy).

Etym. :—Named in honour of the naturalist Des Moulins.

1843. *Pupa anglica*, Pot. & Mich.: MOQUIN-TANDON, *Hist. & Mém. Acad. Sci. Toulouse*, vi, pt. 1, p. 176.  
[Non Potiez & Michaud. *Teste Moquin-Tandon*, 1856.]
1849. *Pupa Moulinsiana*, Dup.: DUPUY, *Cat. Extramar. Gallie Test.* [p. 4], no. 284; *Hist. Moll. France*, p. 415 (1850), pl. xx, f. 11.
1852. *Pupa lavigata*, Kokeil [MS.]: GALLENSTEIN, *Jahrb. Naturh. Landesmus. Kärnten* [i], 1852, p. 80.
1852. *Pupa Charpentieri*, Shuttleworth: KÜSTER, in Martini's *Syst. Conch. Cab.*, i, abth. 15, "Pupa," p. 129, pl. xvi, f. 41-43.
1855. *Vertigo Charpentieri*, Shuttl.: H. & A. ADAMS, *Genera Moll.*, ii, p. 172.
1855. *Vertigo moulinsiana*, Dup.: DROUËT, *Mém. R. Soc. Liège*, x, p. 155.
1856. *Vertigo (Isthmia) Moulinsiana*, Dupuy: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 403, pl. xxviii, f. 31-33. [In explanation of plate it is styled *V. Moulinsii*.]
1856. *Vertigo (Isthmia) limbata*, Partiot [MS.]: MOQUIN-TANDON, *l. c.*
1862. *Vertigo ventrosa*: HEYNEMANN, *Malak. Blätt.*, ix, p. 11.
1863. *Vertigo Moulinsiana*, Dupuy: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 117, figs.
1864. *Vertigo (Dexiogyra) Moulinsiana*, Dupuy: STABILE, *Atti Soc. Ital. Sci. Nat.*, vii, p. 104.
1881. *Pupa (Vertigo) moulinsiana*, Dupuy: KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 71.
1887. *Pupa (Alæa) moulinsiana*, Dup.: WESTERLUND, *Fauna Paläarct. Region*, iii, p. 136.
1889. *Vertigo (Alæa) moulinsiana*, Dup.: BOETTGER, *Jahrb. Nassau. Ver. Naturk.*, xlii, p. 306.
1913. *Vertigo Desmoulinsi*: GERMAIN, *Moll. France*, ii, p. 188.

[\* \* The *Pupa Desmoulinsiana*, Dupuy, of Jeffreys, 1855, and *Vertigo Moulinsiana*, Dupuy, of the same writer in 1862, were both *V. lilljeborgi*, Westerlund (*q.v.*.)] First recorded as British in 1869, by J. G. Jeffreys, as a fossil from Cambridge [*i.e.* the Pleistocene at Barnwell]. (*Brit. Conch.*, v, p. 160.)

British Distribution in Time: Pleistocene to Recent.

7. *Vertigo* (s.s.) *lilljeborgi*,\* Westerlund.

Etym. :—Named in honour of the Swedish naturalist Lilljeborg.

1855. *Pupa Desmoulinsiana*, Dupuy : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. xv, p. 29. [Non Dupuy.]
1862. *Vertigo Moulinsiana*, Dupuy : JEFFREYS, *Brit. Conch.*, i, p. 255; v, pl. xv, f. 6. [Non Dupuy. Cf. Jeffreys, *Ann. & Mag. Nat. Hist.*, Ser. V, vol. ii, 1878, p. 380.]
1865. *Vertigo modesta*, nov. sp. : WESTERLUND, *Öfvers. K. Vet. Akad. Förhandl. Stockholm*, xxii, 1865, p. 556. [Non Say, 1824.]
- [1868. *Vertigo Lilljeborgi* : WESTERLUND, *Coll. Typ. Moll. Succinæ*, no. 60. [A list sent out with collections.]
1868. *Pupa modesta*, Agardh-Westerlund : PFEIFFER, *Monog. Helic. viv.*, vi, p. 332.
1871. *Pupa (Vertigo) Lillejborgi*, Westerl. : WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 90.
1887. *Pupa (Alæa) lilljeborgi*, West. : WESTERLUND, *Fauna Palæarct. Region*, iii, p. 136.

First recorded as British in 1855, by J. G. Jeffreys, as *Pupa desmoulinsiana*, Dupuy. (See ref. above.)  
British Distribution in Time : Recent.

8. *Vertigo* (s.s.) *alpestris*, Alder.

Etym. :—Based on Lat. *Alpes*, a high mountain, = inhabiting high land.

1837. *Vertigo alpestris* (Fér.), Ald. : ALDER, *Mag. Zool. & Bot.*, ii, p. 112. [*n. nud.*]
1838. *Vertigo alpestris*, Fér. [MS.] : ALDER, *Trans. Nat. Hist. Soc. Northumb.*, ii, p. 340.
- 1840, } *Vertigo (Isthmia) alpestris*, Férussac : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 202, pl. xii, f. 141.
- Post } *Vertigo alpestris*, Férussac, MSS. : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 42, pl. xviii, f. 40.
1840. } *Vertigo alpestris*, Férussac MSS. : BROWN, *Illust. L. &*  
1845. } *F.-W. Conch. Brit.*, p. 51, pl. v, f. 15.
1847. *Pupa Shuttleworthiana*, Charp. [MS.] : PFEIFFER, *Zeitschr. Malak.*, iv, p. 148. [Teste Jeffreys & Boettger.]
1848. *Pupa pygmaea*, Draparnaud, var.  $\beta$  : PFEIFFER, *Mon. Helic. viv.*, ii, p. 363.
1852. *Pupa pygmaea* [pars] : FORBES & HANLEY, *Brit. Moll.*, iv, p. 106, pl. cxxx, f. 6.

1853. *Pupa (Vertigo) pygmaea*, var. *alespstris*: MIDDENDORFF, in Append. to Maack, *Bull. Acad. St. Petersb.*, xi, col. 376.
1855. *Vertigo Shuttleworthiana*, Charp.: H. & A. ADAMS, *Genera Moll.*, ii, p. 172.
1857. *Vertigo (Isthmia) alpestris*, Alder: GRAY, *Turton's Manual*, new ed., p. 171, pl. xii, f. 141.
1862. *Vertigo Alpestris*, Alder: JEFFREYS, *Brit. Conch.*, i, p. 259; v, pl. xvi, f. 1.
1863. *Vertigo alpestris*, Alder: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 119, figs.
1871. *Pupa (Vertigo) alpestris*, Alder: KOBELT, *Cat. Europ. Binnenconch.*, p. 33.
1871. *Pupa (Vertigo) alpestris*, Alder: WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 95.
1875. *Pupa (Vertigo) shuttleworthiana*, Charp.: WESTERLUND, *Malak. Blätt.*, xxii, p. 128.
1887. *Pupa (Alæa) alpestris*, Alder: WESTERLUND, *Fauna Palæarct. Region*, iii, p. 132.
1887. *Pupa (Vertigo) parcedentata-Genesi* [pars]: SANDBERGE, *Verhandl. phys.-med. Gesell. Wurzburg*, N.F. xx, no. 11, p. 1. [*Teste Pilsbry.*]
1889. *Vertigo (Alæa) alpestris* (Ald.): BOETTGER, *Jahrb. Nassau. Ver. Naturk.*, xlii, p. 307.

First recorded as British in 1838, by J. Alder. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

### 9. *Vertigo (Vertilla) angustior*, Jeffreys.

Etym.:—Lat. *angustior*, narrower.

1807. *Turbo vertigo* [pars]: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 183.
1821. *Vertigo venetzi*, Charpentier: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 69 (June ed., p. 65). [*n. nud.*]
1823. *Turbo vertigo*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1827. *Pupa pusilla*, Pfeiffer: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 9.
1830. *Vertigo angustior*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 361.
1831. *Vertigo nana*: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 71, pl. xv, f. 24 & 25.
1837. *Vertigo venetzi*, mihi & Fét.: CHARPENTIER, *Neue Denkschr. Schweiz. Gesell.*, i [no. 2], p. 18, pl. ii, f. 11.
1837. *Vertigo hamata*, mihi: HELD, *Isis*, xxx, hft. 12, col. 304.

1838. *Pupa nana*, Mich.: LAMARCK, *Hist. Anim. s. Vert.*, ed. 2 par Deshayes, viii, p. 190.
1838. *Vertigo plicata*, m.: AUG. MUELLER, *Arch. f. Naturg.*, 1838, i, p. 210, pl. iv, f. 6.
1840. } *Vertigo (Vertigo) angustior*, Jeffreys: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 205.
- Post } *Vertigo angustior*, Jeffreys: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 42, pl. xiv, f. 9.
1840. }
1845. *Vertigo angustior*, Jeffreys: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 52, pl. v, f. 17.
1847. *Pupa (Vertigo) angustior*, Mont. [sic]: BECK, *Amtl. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.
1848. *Pupa vevetzii*, Charpentier: PFEIFFER, *Monog. Helic. viv.*, ii, p. 364.
1852. *Pupa Venetzii*, Charpentier: FORBES & HANLEY, *Brit. Moll.*, iv, p. 112, pl. cxxx, f. 9.
1853. *Pupa angustior*, Jeffr.: PFEIFFER, *Monog. Helic. viv.*, iii, p. 560.
1856. *Vertigo (Vertilla) plicata*, A. Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 408, pl. xxix, f. 8-11.
1857. *Vertigo (Vertigo) angustior*, Jeffreys: GRAY, Turton's *Manual*, new ed., p. 174.
1860. *Pupa (Vertigo) angustior*, Jeffreys: MARTENS, in Albers, *Heliceen*, ed. 2, p. 292.
1862. *Vertigo angustior*, Jeffreys: JEFFREYS, *Brit. Conch.*, i, p. 265; v, pl. xvi, f. 4.
1863. *Vertigo vertigo*, Montagu: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 121, figs.
1904. *Vertigo (Vertilla) angustior*, Jeffr.: KOBELT, in Rossmässler, *Icon*, N.F. xi, p. 224.
1911. *Pupa öcsensis*, n. sp.: HALAVÁTS, *Result. Wissensch. Erforsch. Balatonsees*, i, thl. I, Anhang: *Palaeont.*, iv, no. 2, p. 60, pl. iii, f. 10. [Teste Boettger.]

First recorded as British in 1830, by J. G. Jeffreys.  
(See ref. above.)

British Distribution in Time: Pleistocene to Recent.

Genus: 2. TRUNCATELLINA, Lowe.

Etym.:—From the Lat. *truncatus*, maimed, i.e. by cutting short.

Genotype:—*Pupa linearis*, Lowe.

(*Pupa*, Draparnaud, non Bolten, 1798, nec Lamarck, 1801; *Vertigo*, etc., vett. auctt.)

1824. *Puppa* [Sect.], D.: BLAINVILLE, *Dict. Sci. Nat.*, xxxii, p. 251.

1830. *Alwa* [pars]: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 357.  
 1837. *Sphyradium*, Ag. (Msc.), subg. 2 of *Pupa* [pars]: CHARPENTIER, *Neue Denkschr. All. Schweiz. Gesell.*, i [no. 2], p. 15.  
 \*1843. *Stomodonta* [pars]: MERMET, *Hist. Moll. Pyrén. occid.*, p. 55.  
 1852. *Truncatellina*: LOWE, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. ix, p. 275.  
 1855. *Truncatellina*, § 2 of *Pupa*: LOWE, *Proc. Zool. Soc. Lond.*, 1854 (-55), p. 207.  
 1879. *Isthmia*, Gray: REINHARDT, *Sitz.-Ber. Gesell. Naturf. Freunde Berlin*, 1879, p. 133.  
 1914. *Columella*, Westerlund [pars]: KENNARD & WOODWARD, *List Brit. Non-mar. Moll.*, p. 8.  
 1915. *Laurinella*: HESSE, *Nachrbl. Deutsch. Malak. Gesell.*, xlvii, p. 53.

1. ***Truncatellina cylindrica*** (Férussac).

Etym. :—Lat. *cylindrus*, a cylinder.

1801. *Pupa muscorum*: DRAPARNAUD, *Tabl. Moll. France*, p. 56. [Non Linné.]  
 1805. *Pupa muscorum*, Linn., var.  $\alpha$ : DRAPARNAUD, *Hist. Moll. France*, p. 59, pl. iii, f. 26 & 27.  
 1807. *Vertigo cylindrica*, nobis: FÉRUSSAC, *Essai méthod. Conchyl.*, p. 52.  
 ?1820. *Pupa minuta* [nom. nov.]: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," pp. 19 & 21.)  
 ?1820. *Vertigo unidentata*, mihi: STUDER, *l. c.* (In reprint, "Syst. Verzeichn.," pp. 19 & 21.) [Nom. nud.]  
 1821. *Vertigo cylindrica*, nobis: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 68 (June ed., p. 64).  
 ?1821. *Pupa minutissima*: HARTMANN, *Neue Alpina*, i, p. 220, pl. ii, f. 5.  
 1823. *Turbo muscorum*: [BROWN], *Eucy. Brit.*, ed. 6, vi, p. 457.  
 1824. *Puppa muscorum*, Drap.: BLAINVILLE, *Dict. Sci. Nat.*, xxxii, p. 251.  
 [1826. *Jaminia muscorum*, Drap.: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 88. [= *Lauria cylindracea*. Teste Caziot.]  
 1827. *Pupa muscorum*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 3.  
 1827. *Pupa labiata*, Brown: BROWN, *o. c.*, pl. xli, f. 7.  
 1828. *Pupa minutissima*, Hartmann: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 38, pl. vii, f. 12 & 13.  
 1828 ?*Pupa pusillima*, Ziegl.: MENKE, *Synop. Moll.*, p. 18.  
 1828. *Pupa obtusa*, Drap.: FLEMING, *Hist. Brit. Anim.*, p. 269. [Non Draparnaud.]

1830. *Alca cylindrica*, Fér.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 359.
1831. *Vertigo muscorum*, Drap.: MICHAUD, *Compl. Hist. Moll. France* Drap., p. 70.
1837. *Pupa (Alca) minutissima*, Hartm.: BECK, *Index Moll.*, p. 85.
1837. *Pupa (Sphyradium) muscorum*, Drap.: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 15.
1837. *Vertigo pupula*: HELD, *Isis*, xxx, hft. 4, col. 308. [*Nom. nov. for Pupa minutissima*, Hartm.]
1840. } *Vertigo (Isthmia) cylindrica*, Jeffreys: GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 200, pl. xii, f. 140.
- Post }  
Sept. } *Pupa muscorum*, Drapernaud: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 39, pl. xiv, f. 3 & 7.
- Post }  
Sept. } *Vertigo cylindrica*, Férussac: BROWN, *o. c.*, p. 41, pl.  
1840. } xviii, f. 38.
- \*1843. *Stomodonta muscorum*, nob.: MERMET, *Hist. Moll. Pyrén. occid.*, p. 55.
1845. *Pupa muscorum*, Drapernaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 42, pl. v, f. 1.
1845. *Vertigo cylindrica*, Férussac: BROWN, *o. c.*, p. 49, pl. v, f. 12.
1846. *Vertigo minutissima*, Hartm.: GRAELLS, *Cat. Moll. España*, p. 7.
1850. *Pupa (Pupilla) minutissima*, Hartm.: ALBERS, *Helicen*, p. 205.
1852. *Pupa minutissima*, Hartmann: FORBES & HANLEY, *Brit. Moll.*, iv, p. 104, pl. cxxx, f. 2.
1855. *Pupa (Truncatellina) minutissima*, Hartm.: LOWE, *Proc. Zool. Soc. Lond.*, xxii, 1854 (-55), p. 207.
1856. *Vertigo (Isthmia) muscorum*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 399, pl. xxviii, f. 20-24.
1857. *Vertigo (Isthmia) muscorum*, Drap.: GRAY, *Turton's Manual*, new ed., p. 169, pl. xii, f. 140.
1862. *Vertigo minutissima*, Hartmann: JEFFREYS, *Brit. Conch.*, i, p. 270; v, pl. xvi, f. 5.
1863. *Vertigo minuta*, Studer: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 123, figs.
1871. *Pupa (Isthmia) minutissima*, Hartmann: KOBLET, *Cat. Europ. Binnenconch.*, p. 32.
1882. *Isthmia muscorum*, Drap.: JOUSSEAUME, *Bull. Soc. Zool. France*, vii, p. 485, pl. xii, f. 37 & 38.
1889. *Isthmia minutissima* (Hartm.): BOETTGER, *Jahrb. Nassau. Ver. Naturk.*, xlii, p. 275.



1913. *Sphyradium muscorum*, Draparnaud: GERMAIN, *Moll. France*, ii, p. 84.  
 1914. *Columella minutissima* (Hartmann): KENNARD & WOODWARD, *List. Brit. Non-mar. Moll.*, p. 8.  
 1915. *Laurinella minutissima*: HESSE, *Nachrbl. Deutsch. Malak. Gesell.*, xlvii, p. 53.

[\* \* In many cases *T. strobeli* (Gredler) was probably included in the above.]

First recorded as British in 1828, by J. Fleming, from specimens found in 1813 by Dr. Chalmers of Kirkcaldy, at Balmerino, Fifeshire, and referred to *Pupa obtusa*, Drap. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

## 2. *Truncatellina britannica*, Pilsbry (em.).

Etym.:—Lat. *Britannicus*, British.

(Formerly confused with *T. cylindrica*, Férussac.)

1921. *Truncatellina rivierana britannica* [err. typ.], n. subsp.: PILSBRY, *Man. Conch.*, Ser. II, vol. xxvi, p. 77, pl. viii, f. 13 & 14.  
 1923. *Truncatellina britannica*, Pilsbry: KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xv, pp. 294 & 296.

[The full synonymy of the species of which Pilsbry thought this might be a variety, is as follows:—

- \*1853. *Pupa Strobeli*: GREDLER, III. *Gymn. Progr. v. Botzen*. [Fide Gredler, 1856, infra.]  
 1854. *Pupa rivierana*, nobis, n. s.: BENSON, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. xiii, p. 97.  
 1856. *Pupa Strobeli*, Gredler: GREDLER, *Verhandl. zool.-bot. Ver. Wien*, vi, p. 114.  
 1864. *Vertigo muscorum*, var. *B. triplicata*: BOURGUIGNAT, *Malac. Algérie*, ii, p. 99, pl. vi, f. 31 & 32.  
 1879. *Pupa (Isthmia) strobeli*, Gredl.: BOETTGER, *Jahrb. Deutsch. Malak. Gesell.*, vi, p. 405.  
 1889. *Pupa mystica*, Pils.: STERKI, *Nachrbl. Deutsch. Malak. Gesell.*, xxi, p. 119.  
 1892. *Isthmia strobeli*, Gredl.: ROSEN, *Nachrbl. Deutsch. Malak. Gesell.*, xxiv, p. 126.  
 1897. *Isthmia strobeli*, Gredler: WESTERLUND, *Synop. Moll. Extramar. Reg. Paläarct.*, p. 111.]

First recorded as British in 1921, by H. A. Pilsbry, as a var. of *T. rivierana*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.



Genus : 3. **COLUMELLA**, Westerlund.

Etym. :—Lat. *columella*, a little column.

Type :—*Pupa inornata*, Michaud.

(*Helix*, *Turbo*, *Pupa*, *Vertigo*, vett. auctt.)

1837. *Sphyradium*, Ag. (Msc.), sub-gen. 2 of *Pupa* [pars]:  
CHARPENTIER, *Neue Denkschr. Allg. Schweiz.  
Gesell.*, i [no. 2], p. 15.
1855. *Paludinella*, sub-gen. of *Pupa*: LOWE, *Proc. Zool. Soc.  
Lond.*, 1854, p. 206. [Non Pfeiffer, 1841.]
1876. *Edentulina*, 7. Gruppe of *Pupa*: CLESSIN, *Deutsch. Excur.  
Moll. Fauna*, p. 208. [Non Pfeiffer, 1855.]
1878. *Columella*, sub-gen. 9 of *Pupa*: WESTERLUND, *Fauna  
Europ. Moll. Prod.*, ii, p. 193.

1. **Columella edentula** (Draparnaud).

Etym. :—Lat. *edentulus*, toothless.

1789. *Helix exigua*, n. sp. : STUDER, in COXE, *Trav. in Switzerld.*,  
iii, p. 386. [*n. nud.*]
1805. *Pupa edentula* : DRAPARNAUD, *Hist. Moll. France*, p. 59,  
pl. iii, f. 28 & 29.
1820. *Vertigo edentula*, Drap. : STUDER, *Naturw. Anz. Allg.  
Schweiz. Gesell.*, iii, p. 89.
1821. *Vertigo nitida*, nobis : FÉRUSAC, *Tabl. syst. Limaçons*,  
Jan. ed., p. 68 (June ed., p. 64.)
1821. *Pupa muscorum*, var.  $\gamma$  : HARTMANN, *Neue Alpina*, i,  
p. 220.
1823. *Turbo Offtonensis* : SHEPPARD, *Trans. Linn. Soc.*, xiv,  
p. 155.
1826. *Jaminia edentula*, Drap. : RISSO, *Hist. Europ. mérid.*,  
iv, p. 89. [Bourguignat says the specimen  
so named was *Ena obscura*.]
1828. *Vertigo edentula*, Drap. : C. PFEIFFER, *Naturg. Deutsch.  
Moll.*, iii, p. 42, pl. vii, f. 28 & 29.
1828. *Turbo edentulus* : WOOD, *Index Test.*, Suppt., p. 19,  
pl. vi, f. 14.
1830. *Alæa nitida*, Fér. : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 358.
1830. *Alæa revoluta* : JEFFREYS, *t. c.*, p. 359.
1831. *Pupa edentula*, Drap. : TURTON, *Manual*, p. 99, f. 80.
1831. *Vertigo edentula*, Drap. : MICHAUD, *Compl. Hist. Moll.  
France Drap.*, p. 72.
1837. *Pupa (Alæa) edentula*, Drp. : BECK, *Index Moll.*, p. 85.
1837. *Pupa (Sphyradium) edentula*, Drap. : CHARPENTIER,  
*Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2],  
p. 15.
1837. *Vertigo lepidula*, mihi : HELD, *Isis*, xxx, hft. 4, col. 307.

- 1840, } *Vertigo (Isthmia) edentula*, Drap. : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 199, pl. vii, f. 80.
- Post }  
Sept. } *Vertigo edentula*, Draparnaud : BROWN, *Illus. Conch.*  
1840. } *Brit.*, ed. 2, p. 41, pl. xviii, f. 36\*.
- \*1843. *Stomodonta edentula*, nob. : MERMET, *Hist. Moll.*  
*Pyrénées occid.*, p. 54.
1845. *Vertigo edentula*, Draparnaud : BROWN, *Illus. L. & F.-W.*  
*Conch. Brit.*, p. 48, pl. v, f. 10 & 10\*.
1850. *Pupa (Pupilla) edentula*, Drp. : ALBERS, *Heliceen*, p. 205.
1852. *Pupa edentula*, Draparnaud : FORBES & HANLEY, *Brit.*  
*Moll.*, iv, p. 103, pl. cxxx, f. 1.
- 1855, } *Pupa (Paludinella) edentula*, Drap. : LOWE, *Proc. Zool.*  
Mar. } *Soc. Lond.*, 1854 (-55), p. 206.
- 1855, } *Vertigo (Isthmia) edentula*, Drap. : H. & A. ADAMS,  
Apr. } *Genera Moll.*, ii, p. 173.
1856. *Vertigo (Isthmia) edentula*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 402, pl. xxviii,  
f. 28-30.
1857. *Vertigo (Isthmia) edentula*, Drap. : GRAY, Turton's  
*Manual*, new ed., p. 167, pl. vii, f. 80.
1862. *Vertigo edentula*, Draparnaud : JEFFREYS, *Brit. Conch.*,  
i, p. 268; v, pl. xvi, f. 6. [Jeffreys' "var.  
*columella*, Benz," was not Benz's species, but  
an *edentula* with an extra whorl.]
1863. *Vertigo edentula*, Draparnaud : REEVE, *L. & F.-W.*  
*Moll. Brit. Is.*, p. 122, figs.
1871. *Pupa (Isthmia) edentula*, Drap. : KOBELT, *Cat. Europ.*  
*Binnenconch.*, p. 32.
1871. *Pupa (Vertigo) edentula*, Drap. : WESTERLUND, *Nova*  
*Acta Soc. Sci. Upsala*, Ser. III, vol. viii,  
no. 1, p. 88.
1881. *Pupa (Columella) edentula*, Drap. : KOBELT, *Cat. Europ.*  
*Binnenconch.*, ed. 2, p. 69.
1882. *Isthmia edentula*, Drap. : LOCARD, *Prod. Malac. Franç.*,  
p. 177. (Also in *Ann. Soc. Agric. Lyon*,  
Sér. V., tom. iv, p. 451.)
1884. *Pupa (Edentulina) edentula*, Draparnaud : CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, p. 254, f. 147.
1890. *Pupa (Sphyradium) edentula*, Drap. : WESTERLUND,  
*Kat. Paläarct. Binnenconch.*, p. 100.
1896. *Sphyradium edentulum*, Drap. : STERKI, *Nautilus*, x, p. 75.

[MARTENS (*Jahresb. St. Gall. Naturw. Gesell.*, 1889-90  
(1891), p. 124) states that this species also occurs in  
Hartmann's Collection as *inornata*.]

First recorded as British in 1823, by the Rev. R. Sheppard,  
as *Turbo Offtonensis*. (See ref. above.)

British Distribution in Time : Pliocene to Recent.

2. †*Columella columella* (Benz).

Étym. :—Lat. *columella*, a small column.

1830. *Pupa columella*, Benz : BENZ, *Correspondbl. Würtemb. Landeswirtschaftl. Verein.*, Bd. xvii, p. 171.  
[In a paper compiled by G. von Martens.]
1831. *Pupa inornata*, Nobis : MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 63, pl. xv, f. 31 & 32.
1837. *Pupa (Alava) inornata*, Michd. : BECK, *Index Moll.*, p. 85.
1841. *Cylindrus inornatus*, Hartm. [MS.] : A. & G. B. VILLA, *Disp. syst. Conch.*, p. 23, in synonymy.
- 1855, } *Vertigo (Isthmia) columella*, Benz : H. & A. ADAMS,  
Apr. } *Genera Moll.*, ii, p. 173.
- 1855, } *Vertigo (Isthmia) inornata*, Mich. : H. & A. ADAMS, *l. c.*  
Apr. }
1855. *Vertigo inornata*, Mich. : DROUËT, *Mém. R. Soc. Liège*, x, p. 155.
1856. *Vertigo (Isthmia) columella*, Benz : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 401, pl. xxviii, f. 25-27.
1860. *Pupa (Pupilla) columella*, G. Martens : MARTENS, in Albers, *Heliceen*, ed. 2, p. 291.
1871. *Pupa (Vertigo) columella*, Benz : WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 87.
1871. *Pupa (Isthmia) columella*, G. von Mart. : KOBELT, *Cat. Europ. Binnenconch.*, p. 32.
1871. *Pupa (Isthmia) inornata*, Mich. : KOBELT, *l. c.*
1872. *Pupa Gredleri*, m. : CLESSIN, *Malak. Blätt.*, xx, p. 57.  
[A plate "iv" is cited but not present.]
1875. *Pupa (Alava) columella*, G. v. Martens : SANDBERGER, *Land- & Süßw.-Conchyl. Vorwelt*, p. 795, pl. xxxiii, f. 34 a-b; xxxvi, f. 27 a-b.
1875. *Pupa (Vertigo) inornata*, Mich. : WESTERLUND, *Malak. Blätt.*, xxii, p. 126.
1875. *Pupa (Vertigo) gredleri*, Cless. : WESTERLUND, *l. c.*
1876. *Pupa (Edentulina) inornata*, Michaud. : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 208, f. 117.
1878. *Pupa (Columella) inornata*, Mich. : WESTERLUND, *Fauna Europ. Moll. Prod.*, ii, p. 193.
1878. *Pupa (Columella) inornata*, var. *Gredleri*, Cless. : WESTERLUND, *l. c.*
1881. *Pupa (Columella) edentula*, var. *Gredleri*, Clessin ; KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 69.
1882. *Isthmia inornata*, Mich. : LOCARD, *Prod. Malac. Franç.*, p. 176. (Also in *Ann. Soc. Agric. Lyon.*, Sér. V, tom. iv, p. 450.)
1889. *Sphyradium columella* (v. Mts.) : BOETTGER, *Jahrb. Nassau. Ver. Naturk.*, xlii, p. 266.

1890. *Pupa (Sphyradium) inornata*, Mich. : WESTERLUND, *Kat. Paläarkt. Binnenconch.*, p. 100.  
 1897. *Sphyradium columella*, G. de Mts. : WESTERLUND, *Synop. Moll. extramar. Region Paläarkt.*, p. 110.  
 1897. *Sphyradium inornatum*, Mich. : WESTERLUND, *o. c.*, p. 111.  
 1904. *Sphyradium gredleri*, Clessin : KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 178.

First recorded as British in 1888, by B. B. Woodward, as *Vertigo edentula*, var. (*Proc. Gesl. Assoc.*, x, p. 359).  
 British Distribution in Time : Pleistocene.

Fam. : VALLONIIDÆ.

Genus : 1. **ACANTHINULA**, Beck.

Etym. :—Dimin. from Gr. *ἀκανθα*, a thorn.

Type :—*Helix aculeata*, Müller. (Selected by Von Martens in 1860.)

(*Helix, Teba*, vett. auctt.)

1847. *Acanthinula* : BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.  
 1864. *Zoögenetes* : MORSE, *Journ. Portland Soc. Nat. Hist.*, i, pp. 5 & 32, pl. i, f. 1-14.  
 1867. *Achatinula* [err. typ. ?], Beck, subg. of *Helix* : BRUSINA, *Rad Jugslav. Akad.*, i, p. 96.  
 1870. *Achantinula* [err. typ. ?] : BETTA, *Atti Accad. Agric. Verona*, xlvii, mem. p. 34.  
 1902. *Aulaca* : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 89.

With :—

Subg. 1. *Acanthinula*, Beck.

Type : *Helix aculeata*, Müll.

„ 2. *Zoögenetes*, Morse.

Type : *Helix harpa*, Say.

„ 3. *Spermodea*, n., Westerlund.

Type : *Helix lamellata*, Jeffr., & *spermatia*, Castro.

1. ***Acanthinula aculeata*** (Müller).

Etym. :—Lat. *aculeatus*, armed with prickles.

1774. *Helix aculeata* : MÜLLER, *Verm. Hist.*, ii, p. 81.  
 1778. *Trochus terrestris*, B. Mortoni : DACOSTA, *Test. Brit.*, p. 36.  
 1786. *Helix spinulosa* : LIGHTFOOT, *Phil. Trans. Roy. Soc.*, lxxvi, p. 166, pl. ii [b], f. 1-5.

1791. *Helix aculeata*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3638.
1802. *Helix nucleata* [n. nov.] : TURTON, in *Linn. Gen. Syst. Nature*, iv, p. 520.
1803. *Helix spinulosa*, Lightfoot : MONTAGU, *Test. Brit.*, p. 429, pl. xi, f. 10.  
[Montagu (p. 430) states that this species was called by Solander, *Helix delectabilis*.]
1805. *Helix aculeata*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 82, pl. vii, f. 10, 11.
1807. *Helix spinulosa*, Lightfoot : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 201.
1813. *Helix spinulosa* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xix, f. 23.
1815. *Volvulus aculeata* : OKEN, *Lehrb. Naturg.*, iii, abt. 1, p. 313.
1817. *Helix aculeata*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 916.
1819. *Teba spinulosa*, Lightfoot : LEACH, *Moll. Brit. Synop.* (proofs), p. 100.
1821. *Helix aculeata*, Muller : FÉRUSAC, *Tabl. syst. Linaçons*, Jan. ed., p. 46 (June ed., p. 42).
1823. *Helix aculeata* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Helix spinulosa*, Mont. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 1.
1828. *Helix aculeata*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 24, pl. iv, f. 24 & 25.
1830. *Helix aculeata*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 332.
1831. *Helix spinulosa*, Montagu : TURTON, *Manual*, p. 43, f. 33.
1831. *Teba spinulosa* : LEACH, in Turton, *Manual*, p. 43, in synon.
1837. *Fruticicola aculeata*, Müller : HELD, *Isis*, xxx, hft. 12, col. 914.
1838. *Helix (Cernuella) aculeata*, m. (Dr.) : SCHLUETER, *Kurz. syst. Verzeichn.*, p. 6.
- \*1839. *Helix Granatelli*, Biv. fil. : BIVONA-BERNARDI, *Occhio Gior.*, no. 9, p. 66, f. 2.—“*Nouv. Moll. di Pal.*” in *Giorn. lett.*, n. 198, p. 17, f. 7. [Teste Benoit.]
1840. } *Helix (Hygromanes) aculeata*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 149, pl. iv, f. 33.
- Post }  
Sept. } *Helix (Helicella) aculeata*, Müller : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 47, pl. xvii, f. 1.
1840. }  
1845. } *Helix (Helicella) aculeata*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 68, pl. vii, f. 22.
1847. *Helix aculecata* [sic], Müller : F. J. SCHMIDT, *Syst. Verzeichn. Krain Conchyl.*, p. 12.

1847. *Acanthinula aculeata*, Müll. : BECK, *Amtl. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Acanthinula) aculeata*, Müll. : ALBERS, *Heliceen*, p. 73.
- 1852, } *Helix aculeata*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
Feb. } iv, p. 74, pl. cxvii, f. 5 & 6.
- 1852, } *Teba spinulosa*, Lightfoot : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 72.
- 1852, } *Euryomphala (Acanthinula) aculeata*, Müll. : MÖRCH, *Cat.*  
Aug. } *Conch. Yoldi*, i, p. 3.
1855. *Discus aculeatus*, Müll. : H. & A. ADAMS, *Genera Moll.*,  
ii, p. 117.
1856. *Helix (Fruiticicola) aculeata*, Müll. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 189, pl. xv, f. 5-9.
1857. *Helix (Hygromanes) aculeata*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 139, pl. iv, f. 33.
1862. *Helix aculeata*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 176 ;  
v, pl. x, f. 6.
1863. *Helix aculeata*, Müller : REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 81, figs.
1867. *Helix (Achatinula) [sic] aculeata*, Müll. : BRUSINA, *Rad*  
*Jugoslav. Akad.*, i, p. 96.
1870. *Achantinula [err. typ. ?] aculeata*, Müll. : BETTA, *Atti*  
*Accad. Agric. Verona*, xlvii, mem., p. 34.
1878. *Hygromia aculeata*, Muller : JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, iii, p. 158, pl. v, f. 46 & 47.
1902. *Anlaca (Acanthinula) aculeata*, Müll. : WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 89.

First recorded as British in 1712, by J. Morton (*Nat. Hist. Northamptonsh.*, p. 415), from Worsley Wood, Northants.

British Distribution in Time : Pleistocene to Recent.

## 2. *Acanthinula lamellata* (Jeffreys).

Etym. :—Lat. *lamella*, a small plate.

1829. *Helix Scarburgensis*, Beau [*sic* : n. nud.] : KENYON,  
*Mag. Nat. Hist.* (London), ii, p. 273.
1830. *Helix lamellata* : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 333.
1830. *Helix Scarburgensis*, Beau MS. : ALDER, *Trans. Nat.*  
*Hist. Soc. Northumb.*, i, p. 36.
1831. *Helix Scarburgensis* : TURTON, *Manual*, p. 62, f. 48.
- 1840, } *Helix (Hygromanes) lamellata*, Jeffreys : GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 150, pl. v, f. 48.
- Post }  
Sept. } *Helix (Helicella) lamellata*, Jeffreys : BROWN, *Illust.*  
1840. } *Conch. Brit.*, ed. 2, p. 47, pl. xviii, f. 47\*.



1845. *Helix (Helicella) lamellata*, Jeffreys: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 67, pl. vii, f. 21.
1847. *Acanthinula lamellata*, Jeff.: BECK, *Amtl. Ber.* 24. *Versamm.*, *Deutsch. Naturf.*, p. 122.
1848. *Helix seminulum*, Rossm.: PFEIFFER, *Mon. Helic. vivent.*, i, p. 51, in synonym.
- [Pfeiffer's reference is "Rossm. viii. f. 533." No such name occurs there. Rossmässler had figured the shell as "*Helix Scarboroughensis*." Gray, in 1857 (Turton's *Manual*, p. 140), repeats Pfeiffer's error. The only *Helix seminulum* cited in literature is that of Chiereghini, published by Nardo (*Sinon. specie Chiereghini*, 1847, col. 85) who refers it doubtfully to *Helix crystallina*, Drap. Pætel, however (*Cat. Conch.-Samml.*, ii, 1889, p. 182), makes it synonymous with *Hyalinia hydatina*, Rm.]
1850. *Helix (Patula) lamellata*, Jeff.: ALBERS, *Heliceen*, p. 64.
1852. *Helix lamellata*, Jeffreys: FORBES & HANLEY, *Brit. Moll.*, iv, p. 73, pl. cxvii, f. 8 & 9.
1855. *Discus lamellatus*, Jeffr.: H. & A. ADAMS, *Genera Moll.*, ii, p. 117.
1857. *Helix (Hygromanes) lamellata*, Jeffreys: GRAY, Turton's *Manual*, new ed., p. 140, pl. v, f. 48.
1860. *Helix (Acanthinula) lamellata*, Jeffreys: MARTENS, in Albers, *Heliceen*, ed. 2, p. 101.
1862. *Helix lamellata*, Jeffreys: JEFFREYS, *Brit. Conch.*, i, p. 175; v, pl. x, f. 5.
1863. *Helix lamellata*, Jeffreys: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 81, figs.
1902. *Aulaca (Spermodea) lamellata*, Jeffr.: WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 90.

First recorded as British in 1829, by J. Kenyon, as *Helix scarburgensis*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

## Genus: 2. VALLONIA, Risso.

Etym.:—Named apparently after the town of Vallon, Ardèche.

Type:—*Vallonia rosalia*, Risso = *V. pulchella* (Müller).

(*Helix*, vett. auctt.)

1826. *Vallonia*: RISSO, *Hist. Europ. mérid.*, iv, p. 101.
1827. *Amplexis*: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 76 & 77.
1831. *Zuramia*: LEACH, in Turton, *Manual*, p. 64, in synonym.
1833. *Chilostoma* [pars]: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 98.
1837. *Circinaria*, subg. 16 of *Helix* [pars]: BECK, *Index Moll.*, p. 23.



1837. *Corneola* [pars]: HELD, *Isis*, xxx, hft. 12, col. 912.  
 1840, } *Lucena*, Hartmann: GRAY, *Turton's Manual*, new ed.,  
 Apr. } p. 142. [Non Hartmann. Cf. Note by  
 B. B. Woodward, *Proc. Malac. Soc.*, xii,  
 1917, p. 220.]  
 Post } *Amplexus*, subg. of *Helix*: BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 45.  
 1840. }  
 1847. *Zurama*, Leach [MS.], subg. of *Helix*: BECK, *Amtl.*  
*Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.  
 1850. *Glaphyra*, subg. 13 of *Helix* [pars]: ALBERS, *Heliccen*,  
 p. 87.  
 1909. *Lurama* [err. typ.]: HONIGMANN, *Zeitschr. f. Naturw.*,  
 lxxxI, p. 290.

### 1. *Vallonia pulchella* (Müller).

Etym.:—Lat. dimin. of *pulcher*, beautiful.

1774. *Helix pulchella*: MÜLLER, *Verm. Hist.*, ii, p. 30.  
 1791. *Helix pulchella*: GMELIN, in *Linn. Syst. Nat.*, ed. 13,  
 i, pt. 6, p. 3633.  
 1801. *Helix pulchella* [pars]: DRAPARNAUD, *Tabl. Moll.*  
*France*, p. 90.  
 1803. *Helix paludosa*, DaCosta [pars]: MONTAGU, *Test. Brit.*,  
 p. 440.  
 1805. *Helix pulchella*, Mull. [pars]: DRAPARNAUD, *Hist. Moll.*  
*France*, p. 112, pl. vii, f. 33 & 34.  
 1807. *Helix paludosa*: MATON & RACKETT, *Trans. Linn. Soc.*,  
 viii, p. 193, pl. v, f. 5.  
 1813. *Helix paludosa*: RACKETT, in Pulteney, *Cat. Dorset.*,  
 ed. 2, p. 53, pl. xix, f. 25.  
 1815. *Vortex pulchella*: OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
 p. 314.  
 1817. *Helix pulchella*, Müll.: DILLWYN, *Cat. Shells*, ii,  
 p. 916.  
 1817, } *Helix minuta*: SAY, *Journ. Acad. Nat. Sci. Philad.*, i,  
 Oct. } p. 123.  
 1819, }  
 Feb. } *Turbo paludosus*: TURTON, *Conch. Dict.*, p. 228.  
 1819. *Zuramia pulchella* [pars]: LEACH, *Moll. Brit. Synop.*  
 (proofs), p. 108.  
 1821. *Helix (Helicella) pulchella*, Muller: FÉRUSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 43 (June ed.,  
 p. 39); *Hist.*, pl. lxix E, f. 12-14.  
 1821. *Helix pulchella*, Müll.: C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 43, pl. ii, f. 32.  
 1823. *Helix crystallina*: [BROWN], *Ency. Brit.*, ed. 6, vi,  
 p. 458.  
 1823. *Helix pulchella*: [BROWN], *t. c.*, p. 459.

1826. *Vallonia rosaliæ* (N): RISSO, *Hist. Europ. mérid.*, iv, p. 102.
1827. *Amplexis paludosus*, BROWN'S MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 76 & 77.
1830. *Helix pulchella*, MÜLL.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 343.
1831. *Helix pulchella*, DRAP.: TURTON, *Manual*, p. 63, f. 49.
1831. *Zuramia pulchella*: LEACH, in Turton, *Manual*, p. 64, in synonym.
1833. *Chilostoma pulchellum*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 98.
1837. *Helix (Circinaria) pulchella*, O. MÜLL.: BECK, *Index Moll.*, p. 23.
1837. *Cornicola pulchella*, DRAP.: HELD, *Isis*, xxx, hft. 12, col. 912.
1840. } *Helix (Zuramia) pulchella*, Müller: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 141, pl. v, f. 49.
1840. } *Lucena pulchella*, Hartmann: GRAY, *o. c.*, p. 142, in  
Apr. } synonym. [Non Hartmann.]
- Post }  
Sept. } *Helix (Amplexus) pulchella*, Müller: BROWN, *Illust.*  
1840. } *Conch. Brit.*, ed. 2, p. 45, pl. xiv, f. 76 & 77.
1845. *Helix (Amplexus) pulchella*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 61, pl. vii, f. 4 & 5.
1847. *Helix (Zuramia) pulchella*, Müll.: BECK, *Amtl. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.
1847. *Helix Potua*, Ch.: NARDO, *Sinon. Species Chiareghini*, col. 87.
1850. *Helix (Glaphyra) pulchella*, Müll.: ALBERS, *Heliceen*, p. 87.
1852. *Helix pulchella*, Müller: FORBES & HANLEY, *Brit. Moll.*, iv, p. 78, pl. cxix, f. 9 & 10.
1852. *Zuramia pulchella* [pars]: LEACH, *Moll. Brit. Synop.*, p. 78.
1855. } *Macrocyclus (Vallonia) pulchella*, Müll.: H. & A. ADAMS,  
June. } *Genera Moll.*, ii, p. 204.
1855. } *Helix (Lucena) pulchella*, DRAP.: MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 140, pl. xi, f. 34.
1857. *Helix (Zuramia) pulchella*, Müller: GRAY, Turton's *Manual*, new ed., p. 119, pl. v, f. 49.
1860. *Helix (Vallonia) Pulchella*, Müll.: MARTENS, in Albers, *Heliceen*, ed. 2, p. 101.
1862. *Helix pulchella*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 224; v, pl. xiv, f. 1 a, b.
1863. *Helix pulchella*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 82, figs.
1864. *Vallonia minuta*, Say: MORSE, *Journ. Portland Soc. Nat. Hist.*, i, p. 21, f. 54-56, pl. viii, f. 57.

1909. *Helix (Theba) pulchella*, Müll. : JODOT, *Compte Rend. Assoc. Franç.*, Sess. 37, p. 427.  
 1909. *Lurama* [err. typ.] *pulchella*, O. F. Müller : HONIGMANN, *Zeitschr. f. Naturw.*, lxxxii, p. 290.

First recorded as British in 1784, by Boys & Walker (*Test. minut. rar.*, p. 6, pl. i, f. 23).

British Distribution in Time : Pliocene to Recent.

## 2. *Vallonia excentrica*, Sterki.

Etym. :—Lat. *ex* + *centrum*, out of the centre.

- ?1778. *Helix paludosa* : DACOSTA, *Test. Brit.*, p. 59.  
 1803. *Helix paludosa*, DACOSTA [pars] : MONTAGU, *Test. Brit.*, p. 440. Cites in synonymy, Boys & Walker, *Test. minut. rar.*, f. 23.  
 1817. *Helix minuta* [pars] : SAY, *Journ. Acad. Nat. Sci. Philad.*, i, p. 123.  
 1893. } *Vallonia excentrica*, n. sp. : STERKI, in Tryon's *Manual*,  
 July. } Ser. II, vol. viii, p. 249, pl. xxxii, f. 6–9.  
 1893. } *Vallonia excentrica*, n. sp. : STERKI, *Proc. Acad. Nat.*  
 Sept. } *Sci. Philad.*, 1893, p. 252, pl. viii, f. B. & M.  
 1894. *Vallonia pulchella*, Müll., var. *excentricoides*, Sterki :  
 WEISS, *Nachrbl. Deutsch. Malak. Gesell.*,  
 xxvi, p. 151.  
 1904. *Lurama* [err. typ.] *excentrica*, Sterki : HONIGMANN,  
*Zeitschr. f. Naturw.*, lxxxii, p. 290.

First recorded as British probably in 1712, by J. Morton (*Nat. Hist. Northampton.*, p. 417).

British Distribution in Time : Pliocene to Recent.

## 3. †*Vallonia tenuilimbata* (Sandberger).

Etym. :—Lat. *tenuis* + *limbatus*, narrowly margined.

1880. *Helix (Vallonia) tenuilimbata*, Sandb. : SANDBERGER,  
*Palaeontogr.*, xxvii (N.F. vii), p. 102, pl. xii,  
 f. 13–13 d.  
 1914. *Vallonia tenuilimbata*, Sandberger : KENNARD & WOOD-  
 WARD, *List Brit. Non-mar. Moll.*, p. 7.

First recorded as British in 1880, by C. L. F. von Sandberger. (See ref. above.)

British Distribution in Time : Cromerian.

## 4. *Vallonia costata* (Müller).

Etym. :—Lat. *costatus*, ribbed.

1774. *Helix costata* : MÜLLER, *Verm. Hist.*, ii, p. 31.  
 1786. *Turbo helicinus* : LIGHTFOOT, *Phil. Trans. Roy. Soc.*,  
 lxxvi, p. 167, pl. iii [a], f. 1–4.

1791. *Helix costata* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3633.
1803. *Helix crenella* : MONTAGU, *Test. Brit.*, p. 441, pl. xiii, f. 3.
1805. *Helix pulchella*, Mull., var.  $\beta$  : DRAPARNAUD, *Hist. Moll. France*, p. 112, pl. vii, f. 30-32.
1807. *Helix paludosa*,  $\beta$  : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 193.
1813. *Helix paludosa*, var. : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53.
1817. *Helix costata*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 915.
- 1819, } *Turbo paludosus*, var. : TURTON, *Conch. Dict.*, p. 228.  
Feb. }
1819. *Zuramia pulchella*, Müll. [pars] : LEACH, *Moll. Brit. Synop.* (proofs), p. 108.
1821. *Helix (Helicella) pulchella*, var.  $\alpha$  : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 43 (June ed., p. 39); *Hist.*, pl. lxix E, f. 15-17.
1821. *Helix costata*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 43, pl. ii, f. 31.
1823. *Helix costata* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.
1827. *Amplexis crenellus*, Brown's MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 78 & 79.
1830. *Helix pulchella*,  $\alpha$  : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 344.
1833. *Chilostoma pulchellum*, var. *costatum*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 98.
1837. *Helix (Circinaria) pulchella*, O. Müll., b : BECK, *Index Moll.*, p. 23.
- 1840, } *Helix (Zuramia) pulchella*, var. : GRAY, *Turton's Manual*,  
Apr. } new ed., p. 142.
- Post }  
Sept. } *Helix (Amplexus) crenella*, Montagu : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 45, pl. xiv, f. 78 & 79.
1840. }  
1845. } *Helix (Amplexus) crenella*, Montagu : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 62, pl. vii, f. 6 & 7.
1847. *Helix (Zurama) pulchella*, var. *costata*, Müll. : BECK, *Aml. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Glaphyra) costata*, Müll. : ALBERS, *Heliccen*, p. 87.
1852. *Helix pulchella* [pars] : FORBES & HANLEY, *Brit. Moll.*, iv, p. 78, pl. cxix, f. 8.
1852. *Zuramia pulchella*, Müll. [pars] : LEACH, *Moll. Brit. Synop.*, p. 78.
- 1855, } *Macrocyclus (Vallonia) costata*, Müll. : H. & A. ADAMS,  
June. } *Genera Moll.*, ii, p. 204.
- 1855, } *Helix (Lucena) pulchella* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 140, pl. xi, f. 32 & 33.  
Sept. }

1857. *Helix (Zuramia) pulchella*, var. : GRAY, Turton's *Manual*, new ed., p. 119.  
 1860. *Helix (Vallonia) pulchella*, var. *costata*, Müll. : MARTENS, in Albers, *Heliccen*, ed. 2, p. 101.  
 1862. *Helix pulchella*, var. *costata* : JEFFREYS, *Brit. Conch.*, i, p. 225; v, pl. xiv, f. 1 c.  
 1863. *Helix pulchella*, Müller [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 82.  
 1876. *Helix (Vallonia) costata*, Müll. : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 95, f. 46.  
 1909. *Lurama* [err. typ.] *costata*, O. F. Müller : HONIGMANN, *Zeitschr. f. Naturw.*, lxxxix, p. 290.

First recorded as British in 1786, by J. Lightfoot, as *Turbo helicinus*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

Fam. : COCHLICOPIDÆ.

Genus : 1. COCHLICOPA, Férussac.

Etym. :—Gr. κοχλίας, a snail shell + κόπτω, to cut.

Type :—*Helix lubrica*, Müller. (Risso, 1826.)

(*Helix*, *Turbo*, *Bulimus*, *Achatina*, etc., vett. auctt.)

1815. *Volvulus* [pars] : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 313.  
 1821. *Cochlicopa*, subg. 10 of *Helix* [pars] : FÉRUSSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 54 [June ed., p. 50].  
 1826. *Cochlicopa* [as a genus] : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 79.  
 1830. *Cionella* [pars] : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 347.  
 1831. *Zua* : LEACH, Turton's *Manual*, p. 82, in synonym.  
 1833. *Styloides* [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 105.  
 1849. *Hylastes* : PARREYSS, *Ber. & Mitthl. Freund. Naturw. Wien* (Haidinger), vi, p. 98, for *H. lubricus*, Drap.

1. *Cochlicopa lubrica* (Müller).

Etym. :—Lat. *lubricus*, smooth.

1765. "*Turbo (Muscorum)*" : STRÖM, *Det Trondheim Selskabs Skrifter*, iii, p. 437.  
 1774. *Helix lubrica* : MÜLLER, *Verm. Hist.*, ii, p. 104.

1777. *Turbo muscorum*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, Svo, p. 131; 4to, p. 114, pl. lxxxii, f. 118. [Non Linné.]
1778. *Turbo glaber*: DACOSTA, *Test. Brit.*, p. 87, pl. v, f. 18.
1789. *Bulimus lubricus*, nob.: BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 311.
- ?1791. *Helix splendidula*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3655. [Teste Pfeiffer.]
1791. *Helix lubrica*, Müll.: GMELIN, *o. c.*, p. 3661.
1799. *Helix stagnorum*: PULTENEY, *Cat. Dorset.*, p. 49.
1801. *Bulimus lubricus*, Mull.: DRAPARNAUD, *Tabl. Moll. France*, p. 67.
1803. *Helix lubrica*, Gmel.: MONTAGU, *Test. Brit.*, p. 390.
1805. *Bulimus lubricus*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 75, pl. iv, f. 24.
1807. *Helix lubrica*, Müller: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 213, pl. v, f. 12.
- 1813? *Lymnaea lubrica*: FLEMING, *Edinb. Ency.*, vii, p. 78.
1813. *Helix lubrica*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xxi, f. 18.
1815. *Volvulus lubrica*: OKEN, *Lehrb. Naturg.*, iii, abth. 1. p. 313.
1817. *Helix sub-cylindrica*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 952. [Non Linné.]
1819. *Zua lubrica*, Müll.: LEACH, *Moll. Brit. Synop.* (proofs), p. 114.
1820. *Bulimus lubricus*: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 88. (In reprint, "Syst. Verzeichn.," p. 17.)
1820. *Helix (Bulimus) lubrica*: FÉRUSSAC, *Journ. Physique*, xc, p. 300.
1820. *Helix (Bulimus) subcylindrica*: FÉRUSSAC, *l. c.*
1821. *Helix (Cochlicopa) lubrica*, Muller: FÉRUSSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 55 (June ed., p. 51).
1821. *Bulimus lubricus*, Drap.: HARTMANN, *Neue Alpina*, i, p. 222.
1821. *Bulimus lubricus*, Müll.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 50, pl. iii, f. 7.
1823. *Helix lubrica*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1826. *Cochlicopa lubrica*: RISSO, *Hist. Europ. mérid.*, iv, p. 80.
1827. *Bulimus lubricus*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 11.
1830. *Achatina lubrica*, m.: MENKE, *Synop. Moll.*, ed. 2, p. 29.
1830. *Cionella lubrica*, Müll.: JEFFREYS, *Trans. Linn. Soc.* xvi, p. 347.
1831. *Bulimus lubricus*, Drap.: TURTON, *Manual*, p. 82, f. 65.
1831. *Zua lubrica*: LEACH, in Turton's *Manual*, p. 82, in synon.



1832. *Columna lubricus*, Brug. : CRISTOFORI & JAN, *Cat. Rerum Nat.*, Sect. ii, pt. 1, p. 4.
1833. *Styloides lubricus*, Férussac : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 105.
1835. *Achatina intermedia*, Z. } ROSSMÄSSLER, *Icon.*, hft. 1,  
*Achatina lubricella*, Z. } p. 88 in text.
1837. *Achatina (Cionella) lubrica* (O. Müll.) Michd! : BECK, *Index Moll.*, p. 80.
1838. *Achatina (Achatinella) lubrica*, m. (Mnk.) : SCHLUETER, *Kurz. Syst. Verzeichn.*, p. 8.
1839. *Bulimus (Achatina) subcylindrica*, Desh. : ANTON, *Verzeichn. Conch.*, p. 44.
- 1840, } *Zua lubrica*, Müller : GRAY, in Turton's *Manual*, new  
Apr. } ed., p. 188, pl. vi, f. 65.
- Post } *Bulimus lubricus*, Bruguière : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 36, pl. xiv, f. 20.
1840. }  
1845. } *Bulimus lubricus*, Bruguière : BROWN, *Illust. L. & F.-W.*  
} *Conch. Brit.*, p. 34, pl. iv, f. 12.
1847. *Achatina minima*, n. : SIEMASCHKO, *Bull. Soc. imp. Nats. Moscow*, xx, no. 1, p. 111, pl. i, f. 4 a-c.
1847. *Bulimus nitens*, Kokeil [MS.] : F. J. SCHMIDT, *Syst. Verzeichn. Krain Conchyl.*, p. 13.
1847. *Bulimus (Cionella) lubrica*, Jeffr. : BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1848. *Achatina nitens*, Kokeil MSS. : PFEIFFER, *Mon. Helic. vivent.*, ii, p. 273.
- 1849, } *Zua Buddii* : DUPUY : *Hist. Nat. Moll. France*, p. 330,  
Jan. } note.
1849. *Hydastes lubricus*, Drap. : PARREYSS, *Ber. & Mitthl. Freund. Naturw. Wien*, vi, p. 98.
1850. *Zua Boissii* : DUPUY, *Hist. Nat. Moll. France*, p. 332, pl. xv, f. 9.
1850. *Glandina (Cionella) lubrica*, Müll. : ALBERS, *Heliceen*, p. 198.
1851. *Bulimus lubricoides*, St. : STIMPSON, *Shells New England*, p. 54. [*Non Achatina lubricoides*, Pot. & Mich.]
- 1852, } *Zua lubrica*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 82.  
Feb. }
- 1852, } *Zua lubrica*, Müller : FORBES & HANLEY, *Hist. Brit.*  
Apr. } *Moll.*, iv, p. 125, pl. cxxv, f. 8.
- 1852, } *Glandina Azorica*, Alb. : ALBERS, *Zeitschr. f. Malak.*,  
Aug. } ix, p. 125.
1855. *Achatina (Zua) maderensis* : LOWE, *Proc. Zool. Soc. Lond.*, 1854 (-55), p. 199.
1855. *Oleacina (Ferussacia) lubrica*, Müll. : H. & A. ADAMS, *Genera Moll.*, ii, p. 106.



1855. *Achatina collina*, Drouët : DROUËT, *Mém. Soc. R. Liège*, x, pp. 152 & 178. [*Teste* Moquin-Tandon.]
1856. *Bulimus* (*Cochlicopa*) *subcylindricus*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 304, pl. xxii, f. 15-19.
1856. *Achatina* (*Cionella*) *lubrica*, Müll. : PFEIFFER, *Malak. Blätter*, ii, p. 170.
1856. *Ferussacia subcylindrica* : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. viii, p. 339. (*Aménit. Malac.*, i, p. 209).
1857. *Zua lubrica*, Müller : GRAY, *Turton's Manual*, new ed., p. 155, pl. vi, f. 65.
1858. *Glandina lubrica*, Mull. : MORELET, *Journ. de Conchyl.*, vii, p. 9.
1860. *Cionella* (*Zua*) *lubrica*, Müll. : MARTENS, in *Albers, Heliceen*, ed. 2, p. 256.
1862. *Cochlicopa lubrica*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 292; v, pl. xviii, f. 2.
1863. *Zua subcylindrica*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 93, figs.
1864. *Zua lubricoidea*, Stimpson : MORSE, *Journ. Portland Soc. Nat. Hist.*, i, p. 30, f. 79, 81, 82.
1864. *Ferussacia* (*Zua*) *lubrica*, Müll. : MÖRCH, *Synop. Moll. Daniæ*, p. 26.
1869. *Cionella subcylindrica*, Linn. : BINNEY & BLAND, *L. & F.-W. Shells N. Amer.* (*Smithson. Miscell. Coll.*, viii, art. 3), p. 224, f. 380-385.
1870. *Ferussacia* (*Zua*) *subcylindrica*, L. : BRUSSINA, *Contrib. Malac. Croatic*, p. 17.
1875. *Cionella columna*, n. sp. : CLESSIN, *Jahrb. Deutsch. Malak. Gesell.*, ii, p. 41, pl. ii, f. 4.
1876. *Cochlicopa* (*Zua*) *lubrica*, Müller : CLESSIN, *Deutsch. Excurs. Moll. Fauna*, p. 182, f. 101.
1877. *Bulimus subcylindricus*, Linné : LOCARD, *Malac. Lyonnaise*, pp. 53 & 136. (*Ann. Soc. Agric. Lyon*, Sér. IV, vol. ix, pp. 471 & 554.)
1880. *Ferussacia cylindrica* [err. pro *subcylindrica*], Bourguignat : MORELET, *Journ. de Conchyl.*, xxviii, p. 59.
1884. *Cionella minima*, Siem. sp. : BRAUN, *Arch. Naturk. Liv.-Ehst.- & Kurlands*, Ser. II, bd. ix, p. 431.
1902. *Zua* (*Cochlicopa*) *lubrica*, Müll. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 113.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 7).

British Distribution in Time : Pliocene to Recent.

## Fam. : AZECIDÆ.

Genus : 1. **AZECA** (Leach MS.), Fleming.

Etym. :—Doubtful. Knight (*Journ. of Conch.*, ix, p. 275) suggests its derivation from Azekah, Gr. 'Αζήκα, a town in Judah mentioned in the Bible.

Genotype :—*Azecca tridens*, Pulteney = *goodalli*, Férussac. (*Turbo*, *Pupa*, etc., vett. auctt.)

1819. *Azecca* : LEACH, *Moll. Brit. Synop.* (proofs), p. 122.  
 1828. *Azecca* [Leach] : FLEMING, *Hist. Brit. Anim.*, p. 269.  
 1831. *Azecca*, Leach : TURTON, *Manual*, p. 68, f. 52.  
 1852. *Azecca* : LEACH, *Moll. Brit. Synop.*, p. 88, pl. viii, f. 8 & 9.  
 1858. *Azeccastrum* : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. x, p. 527. (*Amén. Malac.*, ii, p. 87.)

[\* \* *Odontalus*, Parreyss (*Ber. & Mitthl. Freund. Naturw. Wien*, vi, 1849 (1850), p. 99) has been cited as a synonym, but was founded for *Pupa tridens*, Drap. = *Helix tridens*, Müll., which belongs to *Chondrula*.]

1. ***Azecca goodalli*** (Férussac).

Etym. :—Named in honour of Joseph Goodall, Provost of Eton.

1799. *Turbo tridens*, Müll. : PULTENEY, *Cat. Dorset.*, p. 46.  
 [Non Müller.]  
 1803. *Turbo tridens*, Gmel. : MONTAGU, *Test. Brit.*, p. 338,  
 pl. xi, f. 2. [Non Gmelin.]  
 [According to Montagu (*Test. Brit.*, Suppt., p. 126) this species occurred in the Portland Collection under the name of *Turbo quadridens*.]  
 1807. *Turbo tridens* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 181.  
 1813. *Turbo tridens* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 51, pl. xix, f. 12.  
 1813? *Odostomia tridens* : FLEMING, *Edinb. Ency.*, vii, p. 76.  
 1817. *Turbo tridens*, Gmel. : DILLWYN, *Cat. Shells*, ii, p. 877.  
 [Non Gmelin.]  
 1818. *Pupa tridens*, Montagu : FLEMING, "Conchology," Suppt. 4-6th ed. *Ency. Brit.*, p. 312. [Non Draparnaud.]  
 1819. *Azecca Matoni* : LEACH, *Moll. Brit. Synop.* (proofs), p. 122.  
 1821. *Helix* (*Cochlodonta*) *Goodalli*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 75 (June ed., p. 71).  
 1821. *Carychium Menkeanum* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 70, pl. iii, f. 42.

1822. *Chondrus tridens*, Montagu : FLEMING, *Phil. Zool.*, ii, p. 458.
1823. *Turbo tridens* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 456.
1825. *Pupa tridens* : GRAY, *Ann. Phil.*, xxv (N.S. ix), p. 413. [Non Draparnaud.]
1827. *Pupa tridens*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 2. [Non Lamarek.]
- 1828, } *Pupa Menkeana*, Pfr. : C. PFEIFFER, *Naturg. Deutsch.*  
early } *Moll.*, iii, p. 62, pl. vii, f. 7 & 8.  
Ante }  
Apr. } *Azeca tridens* : FLEMING, *Hist. Brit. Anim.*, p. 269.  
1828. }
1828. *Azeca Maloni* [err. pro *Matoni*], Leach : FLEMING, *Brit. Anim.*, p. 269, in text.
1829. *Pupa britannica*, Kenyon : KENYON, *Mag. Nat. Hist.*, i, p. 426.
1830. *Carychium politum* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 365.
1831. *Pupa Goodallii* : MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 67, pl. xv, f. 39 & 40.
1831. *Azeca Matoni*, Leach : TURTON, *Manual*, p. 68, f. 52.
1833. *Carychium Goodalli* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 517.
- 1837, } *Azeca Goodalli*, Fér. : ALDER, *Mag. Zool. Bot.*, ii,  
Aug. } p. 110.
1837. *Achatina (Azeca) tridens* (Pulteny [sic]) B. : BECK, *Index Moll.*, p. 80.
1839. *Achatina Goodallii*, Fér. : ROSSMÄSSLER, *Icon.* (Bd. ii, pt. 3, 4), Hft. 9, 10, p. 33, f. 654.
- 1840, } *Azeca tridens*, Montagu : GRAY, *Turton's Manual*, new  
Apr. } ed., p. 189, pl. v, f. 52.  
Post }  
Sept. } *Azeca tridens*, Montagu : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 42, pl. xiv, f. 2.
1845. *Azeca tridens*, Montagu : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 53, pl. v, f. 18.
1846. *Achatina tridens*, Pult. : PFEIFFER, *Zeitschr. Malak.*, 1846, p. 152.
1847. *Zua (Ageca [sic]) tridens* : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 175.
1849. *Azeca Nouletiana*, Dup. : DUPUY, *Cat. Extramar. Gallia Test.* [p. 3], no. 31; *Hist. Moll. France*, p. 338 (1850), pl. xv, f. 12.
- 1852, } *Azeca Matoni* : LEACH, *Moll. Brit. Synop.*, p. 88,  
Feb. } pl. viii, f. 8 & 9.
- 1852, } *Azeca tridens*, Pulteny : FORBES & HANLEY, *Brit. Moll.*,  
Apr. } iv, p. 128, pl. cxxv, f. 9.
1854. *Azeca tridens* : G. B. SOWERBY (II), *Pop. Brit. Conchol.*, p. 251.

1855. *Oleacina (Azeca) tridens*, Pultn.: H. & A. ADAMS, *Genera Moll.*, ii, p. 107.
- 1856, { *Bulimus (Azeca) Menkeanus*, C. Pfeiff.: MOQUIN-TAN-  
Jan. { DON, *Hist. Moll. France*, ii, p. 302, pl. xxii,  
f. 7-14.
- 1856, } *Achatina (Azeca) tridens*: PFEIFFER, *Malak. Blätt.*, ii,  
Dec. } p. 170.
1857. *Azeca tridens*, Pult.: GRAY, Turton's *Manual*, new ed.,  
p. 157, f. 42, pl. v, f. 52.
1858. *Azeastrum tridens*: BOURGUIGNAT, *Rev. & Mag. Zool.*,  
Sér. II, tom. x, p. 527. (*Amén. Malac.*, ii,  
p. 87.)
1860. *Cionella (Azeca) Menkeana*, C. Pfeiffer: MARTENS, in  
Albers, *Heliccen*, ed. 2, p. 257.
1862. *Cochlicopa tridens*, Pulteney: JEFFREYS, *Brit. Conch.*, i,  
p. 290; v, pl. xviii, f. 1.
1863. *Azeca tridens*, Pulteney: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 95, figs.
1876. *Cochlicopa (Azeca) Menkeana*, C. Pfeiffer: CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, p. 185, f. 103.
1887. *Cionella (Azeca) tridens*, Pult.: WESTERLUND, *Fauna*  
*Paläarct. Region*, iii, p. 148.
1897. *Azeca elongata*, n. sp.: TAYLOR, *Naturalist*, 1897, p. 75,  
fig. [An abnormality.]
1908. *Azeca menkeana* (C. Pfr.): PILSBRY, *Journ. of Conch.*,  
xii, p. 138.
1913. *Azeca Nouleti*: GERMAIN, *Moll. France*, ii, p. 211.

[GERMAIN (*Moll. France*, ii, pp. 211 & 212) cites as  
synonyms or varieties:—*Azeca Mabiliei*, Fagot;  
*A. alzenensis*, Saint-Simon; and *A. trigonostoma*,  
Bourg. in Fagot.]

First recorded as British in 1799, by R. Pulteney, as  
*Turbo tridens*, Müll. (*See ref. above.*)

British Distribution in Time: Pleistocene to Recent.

### Fam.: ENIDÆ.

#### Genus: 1. ENA, Leach.

Etym.:—Doubtful. Herrmannsen hazards Gr. *ἔνος*, a year!

Type:—*Bulimus montanus*, Draparnaud.

(*Helix*, *Turbo*, *Bulimus*, vett. auctt.)

1819. *Ena*, Prideaux MSS.: LEACH, *Moll. Brit. Synop.* (proofs),  
p. 111.
1820. *Bulinus* [pars]: STUDER, *Naturw. Anz. Schweiz. Gesell.*,  
iii, p. 88. [Non Müller, 1781 (*Physa*).]

1831. *Bulimina* [pars]: EHRENBERG, *Symbol. Phys. Anim. Evert.*, Dec. i [p. 84]. [*Non Orbigny*, 1826 (Foram.).]
1831. *Ena*: LEACH, in Turton's *Manual*, p. 80, in synon.
1837. *Merdigera*: HELD, *Isis*, xxx, hft. 12, col. 917.
1852. *Ena*, Pridéaux MSS.: LEACH, *Moll. Brit. Synop.*, p. 80.
1860. *Napæus*, subg. 8 of *Bulinus* [pars]: MARTENS, in Albers, *Heliceen*, ed. 2, p. 233.

### 1. *Ena montana* (Draparnaud).

Etym.:—Lat. *montanus*, inhabiting mountains.

1789. *Helix sylvestris*, n. sp.: STUDER, in Coxe, *Trav. in Switzerland*, iii, p. 387. [*Nom. nud.*]
1801. *Bulinus montanus*: DRAPARNAUD, *Tabl. Moll. France*, p. 65.
1803. *Helix Lackhamensis*: MONTAGU, *Test. Brit.*, p. 394, pl. xi, f. 3.
1805. *Bulinus montanus*: DRAPARNAUD, *Hist. Moll. France*, p. 74, pl. iv, f. 22.
1807. *Helix Lackhamensis*, Montagu: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 212.
1812. *Helix buccinata*, mihi: ALTEN, *Syst. Abhandl.*, p. 100, pl. xii, f. 22.
- 1813? *Lymnæa Lackhamensis*: FLEMING, *Edinb. Ency.*, vii, p. 78.
1817. *Helix Lackhamensis*, Mont.: DILLWYN, *Cat. Shells*, ii, p. 953.
1819. *Ena montana*, Drap.: LEACH, *Moll. Brit. Synop.* (proofs), p. 112.
- 1820, } *Helix (Bulinus) montanus*: FÉRUSSAC, *Journ. Phys.*, xc,  
Apr. } p. 300.
- 1820, } *Bulinus montanus*: STUDER, *Naturw. Anz. Schweiz.*  
May. } *Gesell.*, iii, p. 88. (In reprint, "Syst. Ver-  
zeichn.," p. 18.)
1821. *Helix (Cochlogena) montana*, Draparn.: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 60 (June ed., p. 56).
1821. *Bulinus montanus*, Drap.: HARTMANN, *Neue Alpina*, i, p. 222.
1821. *Bulinus montanus*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 52, pl. iii, f. 10.
1823. *Helix lackhamensis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1827. *Bulinus montanus*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 22.
1828. *Bulinus Lackhamensis*, FLEMING, *Brit. Anim.*, p. 265.
1830. *Bulinus Montacuti*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 345.

1831. *Bulimus montanus*, Drap. : TURTON, *Manual*, p. 80, f. 62.
1831. *Ena montana* : LEACH, in Turton, *Manual*, p. 80, in  
synon.
1837. *Buliminus Lakhhamensis* [sic] (Mtg.) Flem. : BECK, *Index  
Moll.*, p. 71.
1837. *Bulimus (Bulimulus) montanus*, Drap. : CHARPENTIER,  
*Neue Denkschr. Allg. Schweiz. Gesell.*, i  
[no. 2], p. 14, pl. ii, f. 2.
1837. *Merdigera montanus*, Drap. : HELD, *Isis*, xxx, hft. 12,  
col. 917.
1840. } *Bulimus (Ena) Lackhamensis*, Mont. : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 181, pl. vi, f. 62.
- Post }  
Sept. } *Bulimus montanus*, Drapernaud : BROWN, *Illust. Conch.  
1840. } Brit.*, ed. 2, p. 36, pl. xiv, f. 22.
1845. *Bulimus montanus*, Drapernaud : BROWN, *Illust. L. &  
F.-W. Conch. Brit.*, p. 34, pl. iv, f. 17 & 18.
1847. *Bulimulus (Ena) montanus* : GRAY, *Proc. Zool. Soc.  
Lond.*, 1847, p. 175.
1850. *Bulimus (Merdigcrus) montanus*, Drp. : ALBERS, *Heli-  
ceen*, p. 180.
1852. } *Ena montana*, Drap. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 80.
1852. } *Bulimus Lackhamensis*, Montagu : FORBES & HANLEY,  
Mar. } *Brit. Moll.*, iv, p. 89, pl. exxviii, f. 6.
1856. *Bulimus (Ena) montanus*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 289, pl. xxi, f. 1-4.
1857. *Bulimus (Ena) montanus*, Drap. : GRAY, Turton's  
*Manual*, new ed., p. 150, pl. vi, f. 62.
1860. *Bulimus (Napæus) montanus*, Dr. : MARTENS in Albers,  
*Heliceen*, ed. 2, p. 234.
1862. *Bulimus montanus*, Draparnaud : JEFFREYS, *Brit.  
Conch.*, i, p. 235; v, pl. xiv, f. 5.
1863. *Bulimus montanus*, Draparnaud : REEVE, *L. & F.-W.  
Moll. Brit. Is.*, p. 90, figs.
1871. *Buliminus (Napæus) montanus*, Drap. : KOBELT, *Cat.  
Europ. Binnenconch.*, p. 25.
1878. *Buliminus (Petrcus) montanus*, Drap. : NEVILLE, *Hand  
List Indian Mus.*, i, p. 136.
1879. *Napæus montanus*, Drap. : KRÓL, *Verhandl. zool.-bot.  
Gesell. Wien*, xxviii, Abhandl., p. 7.
1881. *Bulimus Carthusianus*, nob. : LOCARD, *Contrib. Faune  
Malac. Franc.*, i, p. 15. (*Ann. Soc. Linn.  
Lyon*, xxviii, 1882, p. 71.)
1902. *Buliminus (Ena) montanus*, Drp. : WESTERLUND, *Rad  
Jugoslav. Akad.*, cli, p. 102.

First recorded as British in 1803, by G. Montagu, as  
*Helix Lackhamensis*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.



2. *Ena obscura* (Müller).

Etym. :—Lat. *obscurus*, concealed.

- ?1774. *Helix trochulus* : MÜLLER, *Verm. Hist.*, ii, p. 79.  
 ?1774. *Helix ventricosa* : MÜLLER, *t. c.*, p. 102. [*Teste* Moquin-Tandon, *Hist. Moll. France*, ii, p. 279, note.]  
 1774. *Helix obscura* : MÜLLER, *t. c.*, p. 103.  
 1778. *Turbo rupium* : DACOSTA, *Test. Brit.*, p. 90.  
 1789. *Bulinus hordeaceus*, nob. : BRUGUIÈRE, *Ency. Méthod.*, Vers, i, p. 334.  
 ?1791. *Helix ventricosa*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3661, no. 140.  
 1791. *Helix obscura*, Müll. : GMELIN, *t. c.*, p. 3661, no. 141.  
 1793. *Helix trochulus* : FABRICIUS, *Nye Saml. K. Danske Vidensk. Selsk. Skrifter*, iv, p. 99, pl. f. 5. [*Fide* Mörch.]  
 1799. *Helix stagnorum* : PULTENEY, *Cat. Dorset.*, p. 49, pl. xix, f. 27.  
 1801. *Bulinus obscurus* (Müll.) : DRAPARNAUD, *Tabl. Moll. France*, p. 65.  
 1803. *Helix obscura*, Gmel. : MONTAGU, *Test. Brit.*, p. 391. [According to Montagu (*Test. Brit.*, Suppt., p. 147) this species occurred in the Portland Collection under the names of *Turbo muscorum* and *T. polyodens*.]  
 1805. *Bulinus obscurus*, Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 74, pl. iv, f. 23.  
 1807. *Helix obscura*, Müller : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 212, pl. v, f. 11.  
 1813. *Helix obscura* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xix, f. 27 [17 in text by error].  
 1813? *Lymnæa obscura* : FLEMING, *Edinb. Ency.*, vii, p. 78.  
 1815. *Volvulus trochulus* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 313.  
 1815. *Volvulus obscura* : OKEN, *l. c.*  
 1817. *Helix obscura*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 953.  
 1819. *Ena obscura*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 113.  
 1820, } *Helix (Bulinus) obscura* : FÉRUSSAC, *Journ. Phys.*, xc, Apr. } p. 300.  
 1820, } *Bulinus obscurus* : STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 88. (In reprint, "Syst. Verzeichn.," p. 17.) May. }  
 1821. *Helix (Cochlogena) obscura*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 60 (June ed., p. 56.)  
 1821. *Bulinus obscurus*, Drap. : HARTMANN, *Neue Alpina*, i, p. 222.  
 1821. *Bulinus obscurus*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 52, pl. iii, f. 11.



1823. *Helix obscura* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1827. *Bulimus obscurus*, Drap. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 19.
1830. *Bulimus obscurus*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 345.
1831. *Bulimus obscurus*, Drap. : TURTON, *Manual*, p. 81, f. 63.
1831. *Ena obscura* : LEACH, in Turton, *Manual*, p. 81, in synon.
1837. *Buliminus obscurus* (O. Müll.), Drp. : BECK, *Index Moll.*, p. 71.
1837. *Bulimus (Bulimulus) obscurus*, Müll. : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 14, pl. ii, f. 1.
1837. *Merdigera obscurus*, Drap. : HELD, *Isis*, xxx, hft. 12, col. 917.
- 1840, } *Bulimus (Ena) obscurus*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 183, pl. vi, f. 63.
- Post } *Bulimus obscurus*, Drapernaud : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 36, pl. xiv, f. 19 & 21; xviii,  
1840. } f. 13.
1845. *Bulimus obscurus*, Drapernaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 33, pl. iv, f. 24 & 24\*.
1849. *Bulimus Asterianus*, Dup. : DUPUY, *Hist. Nat. Moll. France*, p. 320, pl. xv, f. 7.
1850. *Bulimus (Merdigerus) obscurus*, Müll. : ALBERS, *Heliceen*, p. 180.
- 1852, } *Ena obscura*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 81.  
Feb. }
- 1852, } *Bulimus obscurus*, Müller : FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 90, pl. cxxviii, f. 7.
1855. *Bulimulus (Ena) obscurus*, Müll. : H. & A. ADAMS, *Genera Moll.*, ii, p. 161.
1856. *Bulimus (Ena) obscurus*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 291, pl. xxi, f. 5-10.
1857. *Bulimus Humberti* : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. ix, p. 11, pl. ii, f. 5-7. (*Amén. Malac.*, ii, 1860, p. 28, pl. ii, f. 5-7.)
- 1857, } *Bulimus (Ena) obscurus*, Müller : GRAY, Turton's *Manual*,  
Sept. } new ed., p. 131, pl. vi, f. 63.
1860. *Bulimus (Napæus) obscurus*, Müll. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 234.
1862. *Bulimus obscurus*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 237; v, pl. xiv, f. 6.
1863. *Bulimus obscurus*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 91, figs.
1871. *Buliminus (Napæus) obscurus*, Müll. : KOBELT, *Cat. Europ. Binnenconch.*, p. 25.
1878. *Buliminus (Petæus) obscurus*, Müller : NEVILL, *Hand List Indian Mus.*, i, p. 136.

1879. *Napæus obscurus*, Müll. : KRÓL, *Verhandl. Zool.-bot. Gesell. Wien*, xxviii, Abhandl., p. 7.  
 1894. *Bulimus perexilis*, Locard : } LOCARD, *Coq. Terrest.*  
 1894. *Bulimus centralis*, Locard : } *France*, p. 242. (*Ann. Soc. Agric. Lyon*, Sér. VII, tom. iii, p. 130.)  
 1904. *Buliminus (Ena) obscurus*, Müll. : KOBELT, in ROSSMÄSSLER, *Icon.*, xi, p. 214.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 8).

British Distribution in Time : Pleistocene to Recent.

(Division : *Sigmurethra*.)

Fam. : ENDODONTIDÆ.

Genus : 1. **PUNCTUM**, Morse.

Etym. :—Lat. *punctus*, pierced with a hole.

Type :—*Helix minutissima*, Lea = *pygmæa*, Drap.

(*Helix*, *Zonites*, etc., vett. auctt.)

1833. *Discus* [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 99.  
 1837. *Delomphalus*, Ag., subg. 8 of *Helix* [pars] : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 12.  
 1837. *Euryomphala* [sic], B., subg. 4 of *Helix* [pars] : BECK, *Index Moll.*, p. 8.  
 1837. *Patula* [pars] : HELD, *Isis*, xxx, hft. 12, col. 916.  
 1847. *Euryomphala*, subg. of *Helix* [pars] : BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.  
 1864. *Punctum* : MORSE, *Journ. Portland Soc.*, i, pp. 5 & 27, text figs., and pl. ii, f. 1, for *P. minutissima*, Lea [= *Helix pygmæa*, Drap.].  
 1876. *Patularia*, I. Gruppe of *Patula* [pars] : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 86.  
 1885. *Microphysa*, Albers [pars] : W. G. BINNEY, *Bull. U.S. Nat. Mus.*, xxviii, p. 71.  
 1889. *Pullastra*, Pfr. [err. typ. for *Patulastra*] : WESTERLUND, *Fauna Paläarct. Region*, ii, p. 6 as synonym of *Punctum*.

### 1. **Punctum pygmæum** (Draparnaud).

Etym. :—Lat. *pygmæus*, a pigmy.

1801. *Helix pygmæa* [n. sp.] : DRAPARNAUD, *Tabl. Moll. France*, p. 93.  
 1805. *Helix pygmæa* : DRAPARNAUD, *Hist. Moll. France*, p. 114, pl. viii, f. 8-10.

- 1821, } *Helix (Helicella) pygmaea*, DRAPARN.: FÉRUSAC, *Tabl.*  
 Jan. } *syst. Limaçons*, Jan. ed., p. 44 (June ed.,  
 p. 40); *Hist.*, pl. lxxx, f. 1.
- 1821, } *Helix (Zonites) pygmaea*: GRAY, *Lond. Med. Repos.*, xv,  
 Mar. } p. 239.
1823. *Helix Kirbii* [n. sp.]: SHEPPARD, *Trans. Linn. Soc.*, xiv,  
 p. 162.
1830. *Helix pygmaea*, Drap.: JEFFREYS, *Trans. Linn. Soc.*, xvi,  
 p. 343.
1831. *Helix pygmaea*, Drap.: TURTON, *Manual*, p. 61, f. 46.
1833. *Discus pygmaeus*, mihi: FITZINGER, *Beitr. Landesk.*  
*Oesterr.*, iii, p. 99.
1833. *Helix Kirbii*, Shepp.: JEFFREYS, *Trans. Linn. Soc.*, xvi,  
 p. 512.
1837. *Helix (Euryomphala) pygmaea*, Drap.: BECK, *Index*  
*Moll.*, p. 9.
1837. *Helix (Delomphalus) pygmaea*, Drap.: CHARPENTIER,  
*Neue Denkschr. Allg. Schweiz. Gesell.*, i  
 [no. 2], p. 12.
1837. *Patula pygmaea*, Drap.: HELD, *Isis*, xxx, hft. 12,  
 col. 916.
- 1840, } *Zonites pygmaeus*, Drap.: GRAY, *Turton's Manual*, new  
 Apr. } ed., p. 167, pl. v, f. 46.
- Post } *Helix (Verticillata) pygmaea*, Draparnaud: BROWN,  
 Sept. } *Illust. Conch. Brit.*, ed. 2, p. 51, pl. xviii,  
 1840. } f. 48 & 49.
1841. *Helix spirula*: VILLA, *Dispos. syst. Conch.*, p. 56.
1841. *Helix aliena*, Ziegl. ined.: PFEIFFER, *Symb. Hist. Helic.*,  
 Sect. 1, p. 39.
1844. *Helix minutissima* [n. sp.]: LEA, *Trans. Amer. Phil.*  
*Soc.*, ix, p. 17.
1845. *Helix (Verticillata) pygmaea*, Draparnaud: BROWN,  
*Illust. L. & F.-W. Conch. Brit.*, p. 79, pl. viii,  
 f. 25 & 26.
1847. *Helix (Euryomphala) pygmaea*, Dr.: BECK, *Amtl. Ber.*  
 24. *Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Patula) pygmaea*, Drap.: ALBERS, *Heliccen*, p. 64.
1852. *Helix pygmaea*, Draparnaud: FORBES & HANLEY, *Brit.*  
*Moll.*, iv, p. 83, pl. cxxi, f. 9 & 10.
1855. *Helix (Delomphalus) pygmaea*, Drap.: MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 103, pl. x, f. 2-6.
1856. *Helix (Hyalina) pygmaea*, Drap.: PFEIFFER, *Malak.*  
*Blätt.*, ii, p. 124.
1857. *Helix (Delomphalus) pygmaea*, Drap.: GRAY, *Turton's*  
*Manual*, new ed., p. 143, pl. v, f. 46.
1862. *Helix pygmaea*, Draparnaud: JEFFREYS, *Brit. Conch.*,  
 i, p. 223; v, pl. xiii, f. 7.
1863. *Helix pygmaea*, Draparnaud: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 86, figs.

1864. *Punctum minutissimum*, Lea : MORSE, *Journ. Portland Soc. Nat. Hist.*, i, pp. 5 & 27, figs. & pl. viii, f. 71.
1871. *Patula pygmæa*, Drap. : KOBELT, *Cat. Binnenconch.*, p. 7.
1876. *Patula (Patularia) pygmæa*, Draparnaud : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 90, f. 41.
1878. *Hyalinia (Polita) minutissima*, Lea : CLESSIN, *Nomencl. Helic. vivent.*, p. 64.
1879. *Patula (Patulastra) pygmæa*, Drap. : CLESSIN, *o. c.*, p. 87.
1881. *Patula (Patulastra) pygmæa*, Drap. : KOBELT, *Cat. Binnenconch.*, ed. 2, p. 17.
1885. *Microphysa pygmæa*, Drap. : W. G. BINNEY, *Bull. U.S. Nat. Mus.*, xxviii, p. 71, fig. 31.
1889. *Helix (Punctum) pygmæa*, Drp. : WESTERLUND, *Fauna Paläarct. Region*, ii, p. 8.
1893. *Punctum pygmæum*, Drap. : PILSBRY, in Tryon's *Manual Conch.*, Ser. II, vol. ix, p. 8.
1894. *Patula (Punctum) pygmæa*, Drap. : WEISS, *Nachrbl. Deutsch. Malak. Gesell.*, xxvi, p. 151.
1909. *Punctum pygmæum* (Draparnaud) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 157, pl. xix.

First recorded as British in 1821, by J. E. Gray, as "*Helix Zonites pygmæa*." (See ref. above.)

British Distribution in Time : Cromerian to Recent.

Genus : 2. **GONIODISCUS**, Fitzinger (em.).

Etym. : Gr. γωνία + δίσκος, an angle-edged disc.

Type :—*Helix perspectiva*, Megerle von Mühlfeld, 1818 [non Say, 1817] = *solaria*, Menke.

(*Helix*, *Pyramidula*, *Patula*, vett. auctt.)

1833. *Gonyodiscus* [sic] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 98.
1833. *Discus* [pars] : FITZINGER, *t. c.*, p. 99.
1837. *Delomphalus*, Ag., subg. 8 of *Helix* [pars] : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 12.
1837. *Euryomphala*, subg. 4 of *Helix* [pars] : BECK, *Index Moll.*, p. 8.
1837. *Patula* [pars] : HELD, *Isis*, xx, hft. 12, col. 916.
1847. *Euryomphala*, subg. of *Helix* [pars] : BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1855. *Euromphala* [sic], Beck, § 15 of *Helix* : LOWE, *Proc. Zool. Soc. Lond.*, xxii, 1854 (1855), p. 176.
1876. *Patularia*, I. Gruppe of *Patula* [pars] : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 86.

1878. *Allerya* : BOURGUIGNAT, *Atti Accad. Sci. Palermo*, N.S. vi [no. 4], p. 1. [Non Mörch, 1877.]  
 1886. *Spelæodiscus*, subg. of *Patula* : BRUSINA, *Mitthl. Naturw. Ver. Steiermark*, xxii, p. 37.  
 1887. *Goniodiscus*, subsect. of *Patula*, Group III of *Helix* : TRYON, *Manual, Conch.*, Ser II, vol. iii, p. 43.

1. *Goniodiscus rotundatus* (Müller).

Etym. :—Lat. *rotundatus*, rounded.

1774. *Helix rotundata* : MÜLLER, *Verm. Hist.*, ii, p. 29.  
 1778. *Helix radiata* : DACOSTA, *Test. Brit.*, p. 57, pl. iv, f. 15 & 16.  
 1791. *Helix rotundata* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3633.  
 1799. *Helix radiata* : PULTENEY, *Cat. Dorset.*, p. 47.  
 1801. *Helix rotundata* : DRAPARNAUD, *Tabl. Moll. France*, p. 93.  
 1803. *Helix radiata*, Da Costa : MONTAGU, *Test. Brit.*, p. 432.  
 1805. *Helix rotundata*, Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 114, pl. viii, f. 4-7.  
 1807. *Helix radiata*, Da Costa : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 199.  
 1813. *Helix radiata* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xx, f. 15 & 16.  
 1815. *Vortex rotundata* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 314.  
 1817. *Helix rotundata*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 891.  
 1819. *Zonites radiatus*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs), p. 102.  
 1821. *Helix (Helicella) rotundata*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 44 (June ed., p. 40); *Hist.*, pl. lxxix, f. 2-5.  
 1821. *Helix rotunda* : HARTMANN, *Neue Alpina*, i, p. 231.  
 1821. *Helix rotundata*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 44, pl. ii, f. 33 & 34.  
 1823. *Helix rotundata* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.  
 1826. *Helicella radiatus* (L.) : RISSO, *Hist. Europ. mérid.*, iv, p. 69. [*Teste Caziot.*]  
 1827. *Helix radiata*, Mont. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. [14], 18, 19, [20] & 24.  
 1828. *Helix Turtoni* : FLEMING, *Hist. Brit. Anim.*, p. 260.  
 1830. *Helix rotundata*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 342.  
 1831. *Helix radiata*, Montagu : TURTON, *Manual*, p. 59, f. 44.  
 1831. *Zonites radiatus* : LEACH, in Turton, *Manual*, p. 60, in synonym.  
 1833. *Gonyodiscus rotundatus*, Pfr. : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 98.  
 1833. *Discus rotundatus*, mihi : FITZINGER, *l. c.*, p. 99.

1837. *Helix (Delomphalus) rotundata*, Müll. : CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 12.
1837. *Helix (Euryomphala) rudis*, Gray : BECK, *Index Moll.*, p. 9. [Non Gray.]
1837. *Helix (Euryomphala) rotundata*, O. Müll. : BECK, *l. c.*
1837. *Patula rotundata*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 916.
1840. } *Zonites rotundatus*, Müller : GRAY, *Turton's Manual*,  
Apr. } new ed., p. 165, pl. v, f. 44.
- Post } *Helix (Verticillatæ) rotundata*, Müller : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 51, pl. xvii, f. 14,  
1840. } 18-20 & 24.
1845. † *Helix (Verticillatæ) rotundata*, Müller : BROWN, *Illust. L.*  
& *F.-W. Conch. Brit.*, p. 78, pl. viii, f. 20-24.
1847. *Helix striatula*, Ch. : NARDO, *Sinon. Chierighini*, col. 85.
1847. *Helix (Euryomphala) rotundata*, Müll. : BECK, *Amtl. Ber.*  
24. *Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Patula) rotundata*, Müll. : ALBERS, *Heliceen*, p. 64.
- 1852, } *Helix rotundata*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
Feb. } iv, p. 80, pl. cxix, f. 6 & 7.  
2. }
- 1852, } *Zonites radiatus*, Mont. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 74.  
12. }
- 1855, } *Helix (Euromphala) rotundata*, Müll. : LOWE, *Proc. Zool.*  
Mar. } *Soc. Lond.*, xxii, 1854 (-55), p. 176.
- 1855, } *Helix (Delomphalus) rotundata*, Müll. : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 107, pl. x, f. 9-12.
1857. *Helix (Delomphalus) rotundata*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 141, pl. v, f. 44.
1862. *Helix rotundata*, Müller : JEFFREYS, *Brit. Conch.*, i,  
p. 218; v, pl. xiii, f. 5.
1863. *Helix rotundata*, Müller : REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 83, figs.
1876. *Patula (Patularia) rotundata*, Müller : CLESSIN, *Deutsch.*  
*Excurs. Moll. Fauna*, p. 87, f. 38.
1893. *Pyramidula (Gonyodiscus) rotundata*, Müll. : PILSBRY,  
*Tryon's Manual Conch.*, Ser. II, vol. ix, p. 47.
1894. *Patula (Discus) rotundata*, Müll. : WEISS, *Nachrbl.*  
*Deutsch. Malak. Gesell.*, xxvi, p. 151.
1908. *Helix (Gonyodiscus) rotundata*, Müller : GERMAIN, *Bull.*  
*Soc. Sci. Nat. Elbeuf*, xxvi, p. 79.
1909. *Helix (Gonyodiscus) rotundata*, Müll. : JODOT, *Compte*  
*Rend. Assoc. Franç.*, Sess. xxxvii, p. 427.
- 1909, } *Pyramidula (Discus) rotundata* (Müller) : TAYLOR,  
Sept. } *Monog. Moll. Brit. Is.* [iii], p. 180, pl. xix.
- [GERMAIN (*Moll. France*, ii, p. 83) states that the *Helix omalisma* of Bourgnignat is a variety of this species.]  
First recorded as British in 1692, by M. Lister (*Hist. Conch.*, iv, Append., pl. mlviii, f. 11).  
British Distribution in Time : Pleistocene to Recent.



2. *Goniodiscus ruderatus* (Studer MS., Férussac).

Etym. :—Lat. *runderatus*, covered with rubbish.

1820. *Helix ruderata*, mihi [*n. nud.*]: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 86. (Reprint, "Syst. Verzeichn.," p. 12.)
1821. *Helix (Helicella) ruderata*, Studer: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 44 (June ed., p. 40); *Hist.*, pl. lxxix, f. 6.
1823. *Helix rotundata*, var.  $\beta$ : NILSSON, *Hist. Moll. Sveciæ*, 1822 [*i.e.* 1823], p. 31.
1828. *Helix ruderata*, Studer: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 30, pl. iv, f. 26.
1828. *Helix umbilicus*, Mrkl.: MENKE, *Synop. Moll.*, p. 11, Feb. }  
in synon.
1833. *Discus ruderatus*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 99.
1837. *Helix (Delomphala) ruderata*, Studer: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 12.
1837. *Helix (Euryomphala) ruderata*, Stud.: BECK, *Index Moll.*, p. 9.
1837. *Patula ruderata*, Stud.: HELD, *Isis*, xxx, hft. 12, col. 916.
1847. *Helix (Euryomphala) ruderata*, Stud.: BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Patula) ruderata*, Stud.: ALBERS, *Helicæen*, p. 64.
1855. *Discus ruderatus*, Stud.: H. & A. ADAMS, *Genera Moll.*, ii, p. 117.
1876. *Patula (Patularia) ruderata*, Stud.: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 88, f. 39.
1893. *Pyramidula (Gonyodiscus) ruderata*, Stud.: PILSBRY, *Manual Conch.*, Ser. II, vol. ix, p. 47.
1894. *Patula (Discus) ruderata*, Studer: WEISS, *Nachrbl. Deutsch. Malak. Gesell.*, xxvi, p. 151.
1909. *Pyramidula (Discus) ruderata* (Studer): TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 196, figs.

First recorded as British in 1843, by J. Morris (*Cat. Brit. Foss.*, p. 148), from the Copford post-tertiaries.  
British Distribution in Time: Cromerian to Holocene.

Fam.: ARIONIDÆ.

Genus: 1. **ARION**, Férussac.

Etym. :—Named after Ἀρίων, the lyric poet and player.

Type :—*Arion empiricorum*, Férussac = *Limax ater*, Linnæus.  
(*Cf.* Pilsbry, *Nautilus*, xxxv, 117.)

(*Limax*, vett. auctt.)

1819. *Arion*: FÉRUSSAC, *Hist. Nat. Moll.*, ii, pp. 50 & 53.



1821. *Limacia*: HARTMANN, *Neue Alpina*, i, p. 208.  
 1853. *Ario* [err. typ.], FÉRUSAC: PANESCORSE, *Prod. Hist. Nat. Dépt. Var*, i, p. 125.

Sub-gen.: **Arion**, s.s.

1855. *Lochea*, sec. I of *Arion*: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 10.  
 1868. *Lochea*, Moq.-Tand. [as a genus]: MALM, *Zool. Observ.*, v (*Göteborgs K. Vet. & Vitt. Samhäll. Handl.*, *N. Tidsf.*, x, 1870), p. 30.  
 1868. *Baudonia*: MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xx, p. 131.

Sub-gen.: **Prolepis**, Moquin-Tandon.

Etym.:—Gr. *πρό*, in front + *λεπίς*, a scale or shell.

Type:—*A. subfuscus* (Draparnaud).

1855. *Prolepis*, sect. II of *Arion*: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 14.  
 1868. *Prolepis*, Moq.-Tand. [as a genus]: MALM, *Zool. Observ.*, v. (*Göteborgs K. Vet. & Vitt. Samhäll. Handl.*, *N. Tidsf.*, x, 1870), p. 43.  
 1870. *Prolepis* [sic]: MABILLE, *Ann. Malac.*, i, p. 117.  
 1873. *Kobeltia* [n. gen.]: SEIBERT, *Nachrbl. Deutsch. Malak. Gesell.*, v, p. 81.

Sub-gen.: **Carinella**, Mabille.

Etym.:—Dimin. of Lat. *carina*, a keel.

Type:—*A. circumscriptus*, Johnston.

1870. *Carinella*: MABILLE, *Ann. Malac.*, i, p. 114.

Sub-gen.: **Ariunculus**, Lessona.

Etym.:—Dimin. of *Arion*.

Type:—*A. intermedius*, Normand.

1870. *Eugeomalacus* [pars]: MABILLE, *Ann. Malac.*, i, p. 121. [Under this name Mabille included not only *Geomalacus vera*, but a number of "species" usually referred to *Arion intermedius* and its varieties; while (p. 123) he further created a section *Lavigati*, for certain smooth forms citing two species generally considered to be varieties of *Arion intermedius*.]  
 1881. *Ariunculus*, n. gen.: LESSONA, *Atti R. Accad. Sci. Torino*, xvi, p. 193.

British Distribution in Time: The shell granules of species of this genus are not specifically determinable; they are met with in beds from the Cromerian upwards.

1. *Arion* (s.s.) *ater* (Linnæus).Etym. :—Lat. *ater*, dead black.

1758. *Limax ater* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 652, no. 1.  
 1758. *Limax rufus* : LINNÆUS, *o. c.*, p. 652, no. 2.  
 1767. *Limax ater* : LINNÆUS, *o. c.*, ed. 12, p. 1081, no. 1.  
 1767. *Limax albus* : LINNÆUS, *o. c.*, p. 1081, no. 2.  
 1767. *Limax rufus* : LINNÆUS, *o. c.*, p. 1081, no. 3.  
 1774. *Limax ater*, Linn. : MÜLLER, *Verm. Hist.*, ii, p. 2.  
 1774. *Limax albus* [Linn.] : MÜLLER, *t. c.*, p. 4.  
 1774. *Limax succineus* : MÜLLER, *t. c.*, p. 7.  
 1789. *Limax luteus* : RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 269.  
 1791. *Limax ater*, Müll. : GMELIN, *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3099, no. 1.  
 1791. *Limax albus*, Müll. : GMELIN, *t. c.*, p. 3100, no. 2.  
 1791. *Limax succineus*, Müll. : GMELIN, *t. c.*, p. 3100 no. 3.  
 1801. *Limax ater* : DRAPARNAUD, *Tabl. Moll. France*, p. 101.  
 1801. *Limax rufus* : DRAPARNAUD, *o. c.*, p. 102.  
 1803. *Limax marginellus* : SCHRANK, *Fauna Boica*, p. 252. [Teste Fitzinger.]  
 1805. *Limax ater* : DRAPARNAUD, *Hist. Moll. France*, p. 122, pl. ix, f. 3-5.  
 1805. *Limax rufus*, Linn. : DRAPARNAUD, *o. c.*, p. 123, pl. ix, f. 6.  
 1819. *Arion empiricorum*, nobis : FÉRUSSAC, *Hist. Nat. Moll.*, ii, p. 60, pl. i-iii.  
 1819. *Arion albus*, Müller : FÉRUSSAC, *l. c.*  
 1819. *Arion empiricorum*, FÉRUSS. : LEACH, *Moll. Brit. Synop.* (proofs), p. 66.  
 1821. *Limax ater*, Linnæus : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 19.  
 1821. *Limax rufus*, Linnæus : C. PFEIFFER, *l. c.*  
 ?1821. *Arion melanocephalus*, Faure Biguet : FÉRUSSAC, *Tabl. Syst. Limaces*, p. 18.  
 1821. *Limacia empiricorum*, de FÉRUSSAC : HARTMANN, *Neue Alpina*, i, p. 208.  
 1840. } *Arion ater*, Linn. : GRAY, *Turton's Manual*, new ed.,  
 Apr. } p. 104.  
 Post }  
 Sept. } *Arion empiricorum*, FÉRUSSAC : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 55.  
 1840. }  
 1845. } *Arion empiricorum*, FÉRUSSAC : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 90.  
 Feb. }  
 1845. } *Arion sulcatus*, spec. nov. : MORELET, *Descript. Moll. Portugal*, p. 28, pl. i.  
 July. }  
 1845. } *Arion tumidus*, spec. nov. : MORELET, *o. c.*, p. 31, pl. ii, f. 2.  
 July. }  
 1848. *Limax coccineus*, mihi : GISTEL, *Naturg. Thierreichs*, p. 168.

1852. *Arion empiricorum*, Férussac : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 7, pl. D.D.D., f. 1.
1852. *Arion empiricorum*, Féruss. : LEACH, *Moll. Brit. Synop.*, p. 47, pl. viii, f. 1 & 2.
1853. *Ario* [sic] *ater*, Michaud : PANESCORSE, *Prod. Hist. Nat. Dépt. Var*, i, p. 125.
1853. *Ario rufus*, Mich. : PANESCORSE, *l. c.*
1854. *Arion virescens*, Millet : MILLET, *Ann. Soc. Linn. Dépt. Maine-et-Loire*, i, p. 259.
1855. *Arion* (*Lochea*) *rufus*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 10, pl. i, f. 1-27.
1855. *Arion* (*Lochea*) *albus*, Müll. : MOQUIN-TANDON, *t. c.*, p. 12.
1855. *Arion tenellus*, Müll. : DROUËT, *Mém. Soc. R. Liège*, x, p. 171. [Non Millet indet.]
1857. *Arion ater*, Linn. : GRAY, *Turton's Manual*, new ed., p. 68, f. 28.
1862. *Arion ater*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 127.
1863. *Arion ater*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 9, fig.
1867. *Arion glaucus* [n. sp.] : COLBEAU, *Ann. Soc. Malac. Belgique*, ii, Bull., p. xlviii.
1868. *Baudonia timida*, Morelet : MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xx, p. 133.
1868. *Baudonia montana* [n. nov.] : MABILLE, *t. c.*, p. 133.
1868. *Arion hibernus* [n. sp.] : MABILLE, *t. c.*, p. 134.
1868. *Arion lusitanicus* [n. sp.] : MABILLE, *t. c.*, p. 134.
1868. *Lochea atra* [Linn.] : MALM, *Zool. Observ.*, v (Göteborgs *K. Vet. & Vitt. Samhäll. Handl., N. Tidsf.*, x, 1870), p. 31, pl. i, f. 1.
1868. *Lochea alba* : MALM, *t. c.*, p. 37, pl. i, f. 2.
- \*1870. *Arion Servainianus* [n. sp.] : MABILLE, *Hist. Malac. bassin Paris*, p. 8.
1870. *Arion* (*Lochea*) *rufus*, Linn. : MABILLE, *Ann. Malac.*, i, p. 106.
1870. *Arion* (*Lochea*) *Servainianus*, J. Mabilie : MABILLE, *t. c.*, p. 108.
1870. *Arion* (*Lochea*) *hibernus*, J. Mabilie : MABILLE, *t. c.*, p. 109.
1886. *Arion hispanicus*, n. sp. : SIMROTH, *Jahrb. Deutsch. Malak. Gesell.*, xiii, p. 21, pl. i, f. 2 & 3 [anat.].
1888. *Arion Bocagei* [n. nud.] : SIMROTH, *Zool. Anz.*, xi, p. 86. [Described as *A. empiricorum*, var. *Bocagei*, Simroth, *Nova Acta Acad. Cæs. Leop.-Carol.*, lvi, 1891, p. 347, pl. xiii, f. 1 a-b.]
1905. *Arion ater* (L.) : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 167, pl. xviii.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99).

2. *Arion (Prolepis) subfuscus* (Draparnaud).

Etym. :—Lat. *sub* + *fuscus*, somewhat dusky.

- ?1774. *Limax cinctus* : MÜLLER, *Verm. Hist.*, ii, p. 9.  
 ?1774. *Limax fuscus* : MÜLLER, *t. c.*, p. 11.  
 1805. *Limax subfuscus* : DRAPARNAUD, *Hist. Moll. France*,  
 p. 125, pl. ix, f. 8.  
 1819. *Arion fuscatus*, nobis : FÉRUSSAC, *Hist. Nat. Moll.*, ii,  
 p. 65, pl. ii, f. 7.  
 1821. *Limax subfuscus*, Drap. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 20.  
 [According to Taylor (*Monog. Moll. Brit. Is.* [ii], p. 217)  
 this is a variety of *A. hortensis*.]  
 1823. *Limax fasciatus*, vars.  $\epsilon$ ,  $\zeta$ , &  $\eta$  : NILSSON, *Hist. Moll.*  
*Seccia*, 1822 [*i.e.* 1823], p. 4.  
 1831. *Arion subfuscus*, Drap. : MICHAUD, *Compl. Hist. Moll.*  
*France Drap.*, p. 4.  
 1835. *Arion succineus*, nobis : BOUILLET, *Ann. Scient. Acad.*  
*Sci. Clermont-Ferrand*, viii, p. 530. (In  
 reprint, 1836, p. 14.)  
 1838. *Arion subflavus* [n. nud.] : JOHNSTON, *Hist. Berwicks.*  
*Nat. Club*, i, p. 154.  
 1845. *Arion fuliginus*, spec. nov. : MORELET, *Descript. Moll.*  
*Portugal*, p. 30, pl. ii, f. 1.  
 1851. *Arion Krynickii*, mihi : KALENICZENKO, *Bull. Soc. Nats.*  
*Moscou*, xxiv, no. 3, p. 114, pl. iv, f. 1.  
 \*1852. *Arion cinctus* : DUMONT & MORTILLET, *Hist. Moll.*  
*Savoie*, p. 7.  
 1853. *Ario* [err. typ.] *subfuscus*, Mich. : PANESCORSE, *Prod.*  
*Hist. Nat. Dépt. Var*, i, p. 125.  
 1855. *Arion (Lochea) subfuscus*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 13.  
 1856. *Arion olivaceus*, A. Schmidt : SCHMIDT, in Goldfuss,  
*Verhandl. Naturk. Ver. Preuss. Rheinl. Bonn*,  
 xiii, p. 58.  
 1862. *Arion brunneus* [n. sp.] : LEHMANN, *Malak. Blätt.*, ix,  
 p. 165.  
 1866. *Arion Mabilianus* : BOURGUIGNAT, *Moll. Nouv. Litig.*,  
 p. 173, pl. xxix, f. 1-4.  
 1868, } *Arion campestris* : MABILLE, *Rev. & Mag. Zool.*, Sér. II,  
 Apr. } tom. xx, p. 135. [*Teste* Taylor.]  
 1868. *Arion rubiginosus*, Baudon in litt. : DROUËT, *Mém.*  
*Acad. Sci. Dijon*, Sér. II, tom. xiv, p.  
 58.  
 1868. *Prolepis fuscus*, Müll. : MALM, *Zool. Observ.*, v (Göteborgs  
*K. Vct. & Vätt. Samhäll. Handl.*, N. *Tidsf.*,  
 x, 1870), p. 43, pl. ii, f. 3 & 4.  
 \*1870. *Arion Gaudefroyi* : MABILLE, *Hist. Malac. bassin Paris*,  
 p. 12.

1870. *Arion (Lochea) campestris*, J. Mabilles : MABILLE, *Ann. Malac.*, i, p. 109.
1870. *Arion (Lochea) Gaudefruyi*, J. Mabilles : MABILLE, *t. c.*, p. 110.
1870. *Arion (Lochea) subfuscus*, Drap. : MABILLE, *t. c.*, p. 111.
1870. *Arion (Lochea) Mabilianus*, Bourguignat : MABILLE, *t. c.*, p. 112.
1870. *Arion (Lochea) rubiginosus*, Baudon : MABILLE, *t. c.*, p. 113.
1871. *Arion rufus* (Linné) : WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Sér. III, vol. viii, no. 1, p. 32. [Teste Taylor.]
1871. *Arion citrinus*, mihi : WESTERLUND, *t. c.*, p. 35.
1871. *Arion limacopsis*, n. sp. : WESTERLUND, *t. c.*, p. 36.
1879. *Arion incommodus* : HUTTON, *Trans. N. Zeald. Inst.*, xi, p. 331. [Teste Crosse, *Journ. de Conchyl.*, 1893, p. 219.]
1882. *Arion pegorarii*, nobis : LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 62 (*Mem. Accad. Sci. Torino*, Sér. II, tom. xxxv, 1884, p. 108).
1884. *Arion Pollonerae* : PINI, *Atti Soc. Ital. Sci. Nat.*, xxvii, p. 381.
1885. *Arion stabilei*, n. sp. : POLLONERA, *Atti Accad. Sci. Torino*, xx, p. 700.
1887. *Arion bavayi*, nova species ? : POLLONERA, *Atti Accad. Sci. Torino*, xxii, p. 299, pl. iii, f. 15.
1890. *Arion flavus*, Nilsson : POLLONERA, *Boll. Mus. Zool. Torino*, v, no. 87, p. 15.
1893. *Arion flagellus*, sp. n. : COLLINGE, *Ann. & Mag. Nat. Hist.*, Ser. VI, vol. xii, p. 252, pl. ix, f. 1.
1905. *Arion subfuscus* (Draparnaud) : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 193, pl. xxiv, f. 1-6.

[GERMAIN (*Moll. France*, ii, p. 36) states that *Arion euthymeanus*, Florence, is also a synonym of this species.]

First recorded as British in 1838, by G. Johnston. (See ref. above.)

### 3. *Arion (Prolepis) hortensis*, Férussac.

Etym. :—Lat. *hortus*, a garden.

1819. *Arion hortensis*, nobis : FÉRUSSAC, *Hist. Nat. Moll.*, ii, p. 65, pl. ii, f. 4-6.
1819. *Arion hortensis*, Féruss. : LEACH, *Moll. Brit. Synop.* (proofs), p. 68.
1821. *Limag* [sic] (*Arion*) *hortensis*, Férussac [sic] : GRAY, *Lond. Med. Repos.*, xv, p. 239.
1821. *Limacia hortensis*, de Férussac : HARTMANN, *Neue Alpina*, i, p. 208.

- ?1826. *Arion lineatus* (N.): RISSO, *Hist. Nat. Europ. Mérid.*,  
iv, p. 55. [Tcste Bourguignat, but queried  
by Caziot.]
1828. *Arion hortensis*, Fér.: C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, iii, p. 11.
- ?1830. *Limax fasciatus*, Nils.: KICKX, *Moll. Brabant.*, p. 4,  
f. 4 & 5.
1833. *Arion alpinus*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*,  
iii, p. 89.
- 1840, } *Arion hortensis*, Férus.: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 107.
- Post }  
Sept. } *Arion hortensis*, Férussac: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 55.
1845. *Arion hortensis*, Férussac: BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 90.
- 1852, } *Arion hortensis*, Férussac: FORBES & HANLEY, *Brit.*  
Jan. } *Moll.*, iv, p. 10, pl. F, F, F, f. 1.
- 1852, } *Arion hortensis*, Féruss.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 49.
1855. *Arion (Prolepis) fuscus*, Müll.: MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 14, pl. i, f. 28-30, on the  
explanations to which it appears as *A.*  
*hortensis*.
1857. *Arion hortensis*, Férus.: GRAY, *Turton's Manual*, new  
ed., p. 70.
1862. *Arion hortensis*, Férussac: JEFFREYS, *Brit. Conch.*, i,  
p. 128.
1863. *Arion hortensis*, Férussac: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 11, fig.
1866. *Arion anthracius*: BOURGUIGNAT, *Moll. nouv. Litig.*,  
p. 178, pl. xxix, f. 8-10.
- 1868, } *Arion distinctus*: MABILLE, *Rev. & Mag. Zool.*, Sér. II,  
Apr. } tom. xx, p. 137.
1868. *Prolepis hortensis*: MALM, *Zool. Observ.*, v (Göteborgs K.  
*Vet. & Vitt. Samhäll. Handl.*, N. Tidsf., x,  
1870), p. 49.
1870. *Arion (Prolepis) pelophilus* [n. nov.]: MABILLE, *Ann.*  
*Malac.*, i, p. 117.
1870. *Arion (Prolepis) anthracius*, Bourguignat: MABILLE, *t. c.*,  
p. 118.
1870. *Arion (Prolepis) hortensis*, Férussac: MABILLE, *t. c.*,  
p. 118.
1870. *Arion (Prolepis) distinctus*, J. Mabile: MABILLE, *t. c.*,  
p. 119.
1873. *Kobeltia hortensis*, Fér.: SEIBERT, *Nachrbl. Deutsch.*  
*Malak. Gesell.*, v, p. 81, in text.
- ?\*1881. *Arion pyrenaicus*: FAGOT in Gourdon, *Moll. Luchon*,  
p. 82.



1887. *Arion alpinus*, n. sp.: POLLONERA, *Atti Accad. Sci. Torino*, xxii, p. 305. [Non Fitzinger, 1833.]
1889. *Arion cottianus*, n. sp.: POLLONERA, *Atti Accad. Sci. Torino*, xxiv, p. 634, pl. ix, f. 23 & 24.
- ?1889. *Arion ambiguus*, n. sp.: POLLONERA, *t. c.*, p. 635.
1894. *Arion elongatus*, sp. n.: COLLINGE, *Ann. & Mag. Nat. Hist.*, Ser. VI, vol. xiii, p. 66, pl. v, A, f. 1-4.
1897. *Arion cæruleus*, sp. n.: COLLINGE, *Proc. Zool. Soc. Lond.*, 1897, p. 444. [First proposed as a variety of *A. hortensis* in *Conchologist*, ii, 1892, p. 26.]
1905. *Arion hortensis*, Férussac: TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 210, pl. xxiv, f. 7-10.

First recorded as British in 1821, by J. E. Gray, as "*Limag Arion hortensis*, Ferusac." (See ref. above.)

#### 4. *Arion* (*Carinella*) *circumscriptus*, Johnston.

Etym.:—Lat. *circumscriptus*, marked round with a line.

- ?1819. *Arion hortensis*, var.  $\alpha$ : FÉRUSSAC, *Hist. Nat. Moll.*, ii, p. 65, pl. ii, f. 6.
- ?1821. *Arion hortensis*, var.  $\beta$ : FÉRUSSAC, *Tabl. syst. Limaces*, p. 18; *Hist.*, pl. viii A, f. 2-4.
1823. *Limax fasciatus*,  $\gamma$ : NILSSON, *Hist. Nat. Moll. Sveciæ*, 1822 [i.e. 1823], p. 4.
1828. *Arion circumscriptus*: JOHNSTON, *Edinb. New Phil. Journ.* [vol. v], 1828, p. 76.
1837. *Arion marginatus*, Nob.: KICKX, *Bull. Acad. Bruxelles*, iv, p. 139.
- Post }  
Sept. } *Arion hortensis*, var.: BROWN, *Illust. Conch. Brit.*, ed. 2,  
1840. } p. 55.
1845. *Arion hortensis*, var.: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 90.
1852. *Arion leucophæus*, Nobis: NORMAND, *Descr. Limaces nouv.*, p. 5.
1863. *Arion hortensis* [pars]: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 11.
1864. *Arion Dupuyanus*: BOURGUIGNAT, *Malac. Grande-Chatr.*, p. 30, pl. 1, f. 1-4.
1864. *Arion hortensis*, var. *grisca*: BOURGUIGNAT, *o. c.*, pl. i, explan. to f. 10.
1868. *Arion neustriacus*: MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xx, p. 138.
1868. *Arion Bourguignati*: MABILLE, *t. c.*, p. 139.
1881. *Geomalacus bourguignati*, J. Mabilie: LOCARD, *Mém. Acad. Sci. Lyon*, xxv, p. 11.
1870. *Arion* (*Carinella*) *Dupuyanus*, Bourguignat: MABILLE, *Ann. Malac.*, i, p. 114.



1870. *Arion (Carinella) Bourguignati*, Mabille : MABILLE, *t. c.*, p. 114.  
 1870. *Arion (Carinella) Neustriacus*, Mabille : MABILLE, *t. c.*, p. 115.  
 1885. *Arion (Carinella) subcarinatus*, n. sp. : POLLONERA, *Atti Accad. Sci. Torino*, xx, p. 700.  
 1887. *Arion celticus*, n. sp. : POLLONERA, *Atti Accad. Sci. Torino*, xxii, p. 306, pl. iii, f. 11.  
 1887. *Arion Nilssoni*, n. sp. : POLLONERA, *t. c.*, p. 306.  
 1889. *Arion ambiguus*, Pollonera : POLLONERA, *Atti Accad. Sci. Torino*, xxiv, p. 635, pl. ix, f. 16-19.  
 1906. *Arion circumscriptus*, Johnston : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 227, pl. xxiv, f. 12-17.

First recorded as British in 1828, by G. Johnston. (See ref. above.)

##### 5. *Arion (Ariunculus) intermedius*, Normand.

Etym. :—Lat. *intermedius*, intermediate (between two genera).

1774. *Limax flavus* : MÜLLER, *Vern. Hist.*, ii, p. 10. [Non Linné.]  
 1791. *Limax aurcus* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3102.  
 1848. *Arion flavus*, Müll. : ALDER, *Trans. Tyneside Nat. Field Club*, i, p. 124.  
 1852, } *Arion flavus*, Müller : FORBES & HANLEY, *Brit. Moll.*, iv,  
 Jan. } p. 9, pl. F, F, F, f. 2.  
 1852, } *Arion intermedius*, Nobis : NORMAND, *Descr. Limaces*  
 Nov. } *nouv.*, p. 6.  
 1855. *Arion flavus*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 16.  
 1863. *Arion hortensis*, Fér. [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 11.  
 1867. *Geomalacus intermedius*, Normand : MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xix, p. 57.  
 1867. *Geomalacus Bourguignati* : MABILLE, *t. c.*, p. 58.  
 ?1867. *Geomalacus Paladilhianus* : MABILLE, *t. c.*, p. 60.  
 ?1867. *Geomalacus Moitessierianus* : MABILLE, *t. c.*, p. 61.  
 1868. *Geomalacus hiemalis* : DROUËT, *Mém. Acad. Sci. Dijon*, Sér. II, tom. xiv, p. 59.  
 1868. *Geomalacus Mabillei*, Baudon : BAUDON, *Journ. de Conchyl.*, xvi, p. 142.  
 1869. *Geomalacus Vendeanus* : LETOURNEUX, *Rev. & Mag. Zool.*, Sér. II, tom. xxi, p. 51.  
 1869. *Arion flavus*, Müller : JEFFREYS, *Brit. Conch.*, v, p. 153.  
 1870. *Geomalacus (Eugeomalacus) Bourguignati*, J. Mabille : MABILLE, *Ann. Malac.*, i, p. 121.  
 ?1870. *Geomalacus (Eugeomalacus) Paladilhianus*, J. Mabille : MABILLE, *l. c.*

1870. *Geomalacus* (*Eugeomalacus*) *intermedius*, Normand : MABILLE, *t. c.*, p. 122.
1870. *Geomalacus* (*Eugeomalacus*) *Mabilli*, Baudon : MABILLE, *t. c.*, p. 122.
1870. *Geomalacus* (*Lævigati*) *Vendecianus*, Letourneux : MABILLE, *t. c.*, p. 123.
- ?1870. *Geomalacus* (*Lævigati*) *Moitessierianus*, J. Mabilie : MABILLE, *t. c.*, p. 123.
1871. *Geomalacus* *mabilli*, Baudon : BAUDON, *Mém. Soc. Acad. Oise*, viii, p. 197, pl. i, f. 8-12.
1871. *Geomalacus* *hiemalis*, Drouet : BAUDON, *t. c.*, p. 198, pl. ii, f. 2-4.
1881. *Arion verrucosus*, sp. nov. : BREVIÈRE, *Journ. de Conchyl.*, xxix, p. 310, pl. xiii, f. 1 & 2.
1884. *Arion mabillianus*, nobis : BAUDON, *Journ. de Conchyl.*, xxxii, p. 200. [*Non Bourguignat.*]
1884. *Arion flavus*, Müller : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 116, f. 55.
1885. *Arion minimus*, n. sp. : SIMROTH, *Zeitschr. Wissensch. Zool.*, xlii, p. 237, pl. vii, f. 41.
1889. *Arion Mollerii*, n. sp. : POLLONERA, *Atti Accad. Sci. Torino*, xxiv, p. 639, pl. ix, f. 7-10.
1906. *Arion* (*Ariunculus*) *intermedius*, Normand : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 240, pl. xxiv, f. 18-23.

First recorded as British in 1848, by J. Alder, as *A. flavus*, Müll. (See ref. above.)

## Genus : 2. GEOMALACUS, Allman.

Etym. :—Gr. γῆ, land + μαλακός, soft = land slug.

Type :—Genotype, *Geomalacus maculosus*, Allman.

1843. *Geomalacus* : ALLMAN, *Athenæum*, Sept., 1843, p. 851.
1870. *Eugeomalacus* [pars] : MABILLE, *Ann. Malac.* i, p. 121, for *Geomalacus vera* + some species usually referred to *Arion*, subg. *Ariunculus*.

### 1. *Geomalacus maculosus*, Allman.

Etym. :—Lat. *maculosus*, spotted.

1843. *Geomalacus maculosus* : ALLMAN, *Athenæum*, Sept., 1843, p. 851, col. 3.
1844. *Geomalacus maculosus* : ALLMAN, *Rept. Brit. Assoc.*, 1843 (1844), "Notices," p. 77.
1846. *Geomalacus maculosus*, Allman : ALLMAN, *Ann. & Mag. Nat. Hist.*, xvii, p. 297, pl. ix, f. 1-3.
1852. *Geomalacus maculosus*, Allman : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 12, pl. F, F, F, f. 5.

1855. *Geomalacus maculatus* [sic], Allman : GRAY, *Cat. Pulmonata Brit. Mus.*, i, p. 57.
1857. *Geomalacus maculosus*, Allman : GRAY, *Turton's Manual*, new ed., p. 71.
1862. *Geomalacus maculosus*, Allman : JEFFREYS, *Brit. Conch.*, i, p. 129, pl. v, f. 3.
1863. *Geomalacus maculosus*, Allman : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 13, fig.
1867. *Geomalacus andrewsi* : MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xix, p. 57.
1873. *Letourneauxia lusitana* : SILVA E CASTRO, *Journ. Acad. Sci. Lisboa*, iv, p. 242.
1877. *Limax Lusitanus*, Silva : MORELET, *Journ. de Conchyl.*, xxv, p. 259, in a list.
1890. ?*Geomalacus lusitanus*, Da Silva : POLLONERA, *Boll. Mus. Zool. Univ. Torino*, v, no. 87, p. 35.
1906. *Geomalacus maculosus*, Allman : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 253, pl. xxiv, f. 24-27 & figs.

First recorded as British in 1843, by G. J. Allman. (See ref. above.)

Fam. : MACROCHLAMYDIDÆ.

Genus : 1. PETASINA, Beck.<sup>1</sup>

Etym. :—Lat. dimin. of *petasus*, a travelling cap.

Type :—*Helix fulva*, Müller, selected by Gray in 1847 for *Petasia*. (*Helix*, *Trochus*, *Teba*, *Zonites*, *Hyalinia*, vett. anctt.)

1833. *Conulus* [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 94. [*Non Conulus*, Leske, 1778 (Echinod.), *nec* Rafinesque, 1815.]
1837. *Petasia*, subg. 12 of *Helix* [pars] : BECK, *Index Moll.*, p. 21. [*Non Petasia*, Stephens, 1828 (Lepidopt.); *nec* Morren, 1829 (Infusor.); *nec* Audinet-Serville, 1831 (Orthopt.).]
1838. *Cernuella*, subg. of *Helix* [pars] : SCHLUETER, *Kurz. Syst. Verzeich.*, p. 6.
1847. *Petasia*, subg. of *Helix* : BECK, *Amtl. Ber.* 24. *Versamm. Deutsch. Naturf.*, p. 122.
1883. *Euconulus* : REINHARDT, *Sitzb. Gesell. Naturf. Freunde*, Berlin, 1883, p. 86.
1886. *Trochulus* : WESTERLUND, *Fauna Paläarct. Region*, i, p. 26 & *Beil.* iii, p. 16. [*Non Trochulus*, Humphrey, 1797 (= *Monodonta*, Lam.); *nec Trochula*, Schlüter, 1838 (= *Helicopsis*); *nec "Trochulus, Christ."* Gray, 1847 (indet.).]

<sup>1</sup> The adoption of this generic name for the attached species urged by GUDE & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1921, p. 180, footnote 19.

1889. *Ernestia* : JOUSSEAUME, *Mém. Soc. Zool. France*, ii, p. 250.  
 1890. *Arnouldia* : BOURGUIGNAT, *Bull. Soc. Malac. France*,  
 vii, p. 330.  
 1891. *Vitrea*, Fitz. [pars] : SMITH, *Journ. of Conch.*, vi, p. 339.

### 1. *Petasina fulva* (Müller.)

Etym. :—Lat. *fulvus*, tawny.

1774. *Helix fulva* : MÜLLER, *Verm. Hist.*, ii, p. 56.  
 1777. *Trochus terrestris* : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo,  
 p. 127; 4to, p. 111, pl. lxxx, f. 108. [Dono-  
 van and later writers following him have  
 considered this synonymous with the *Helix*  
*elegans* of Gmelin, but a careful inspection  
 of Pennant's figure shows the present species  
 to be intended.]  
 1778. *Trochus terrestris* [var.] *Listeri* : DACOSTA, *Test. Brit.*,  
 p. 35.  
 1778. *Trochus terrestris* [var.] *Mortoni* : DACOSTA, *o. c.*, p. 36.  
 1791. *Helix fulva*, Müll. : GMELIN, *Linn. Syst. Nat.*, ed. 13,  
 i, pt. 6, p. 3630.  
 1793. *Helix fulva*, Müller : FABRICIUS, *Ny Samml. K. Dansk.*  
*Vidensk. Selsk. Skrifter*, iv, p. 98, pl. [i],  
 f. 4 a-e. [Fabricius' figure of Müller's  
 specimen establishes the identity of this  
 species.]  
 1801. *Helix fulva* : DRAPARNAUD, *Tabl. Moll. France.*, p. 72.  
 1803. *Helix trochiformis* : MONTAGU, *Test. Brit.*, p. 427, pl. xi,  
 f. 9. [Montagu, *Test. Brit.*, Suppt., p. 146,  
 says that the species occurred in the Port-  
 land Museum under the name of *Trochus*  
*compressus*.]  
 1805. *Helix fava*, Mull. : DRAPARNAUD, *Hist. Moll. France*,  
 p. 81, pl. vii, f. 12 & 13.  
 1807. *Helix terrestris* [Penn.] : MATON & RACKETT, *Trans. Linn.*  
*Soc.*, viii, p. 157.  
 1807. *Helix trochiformis*, Montagu : MATON & RACKETT, *t. c.*,  
 p. 200.  
 1812. *Helix nitidula*, mihi : ALTEN, *Syst. Abhandl.*, p. 53,  
 pl. iv, f. 8. [Non Draparnaud, 1805.]  
 1817. *Helix trochulus*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 916.  
 [Non Müller.]  
 1817. *Helix fulva*, Müll. : DILLWYN, *t. c.*, p. 925.  
 1819. *Teba fulva*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs),  
 p. 99.  
 1821. *Helix fulva*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*,  
 i, p. 23, pl. ii, f. 2.  
 1823. *Helix trochulus* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.  
 1825. *Helix egena* [n. sp.] : SAY, *Journ. Acad. Nat. Sci. Philad.*,  
 v, p. 120.

1827. *Helix trochiformis*, Mont. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 2.
1828. *Helix Trochilus* : FLEMING, *Hist. Brit. Anim.*, p. 260.
1830. *Helix trochiformis*, Mont. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 331.
1830. *Helix Mortoni* [n. sp.] : JEFFREYS, *t. c.*, p. 332.
1831. *Helix fulva*, Drap. : TURTON, *Manual*, p. 61, f. 47.
1831. *Teba fulva* : LEACH, *Turton's Manual*, p. 61, in synonym.
1833. *Conulus fulva* [sic] mihi : FITZINGER, *Beitr. Landesk., Oesterr.*, iii, p. 94.
1837. *Helix (Petasia) trochiformis*, Mtg. : BECK, *Index Moll.*, p. 21.
1837. *Helix (Petasia) Fabricii*, B. : BECK, *l. c.*
1837. *Helix (Petasia) fulva*, O. Müll. : BECK, *l. c.*
1837. *Polita fulva*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 916.
1838. *Helix (Cernuella) fulva*, m. (Pf., etc.) : SCHLÜTER, *Kurz. Syst. Verzeichn.*, p. 6.
- \*1839. *Helix mandralisci* : BIVONA, *Giorn. Sci. Lett. Sicilia*, lxiv, p. 230. [*Teste Philippi.*]
1839. *Helix mandralisci*, n. : BIVONA, *Giorn. Sci. Lett. Palermo*, lxiv (altered in MS. to lxvi), p. 230.
1840. } *Helix (Hygromanes) fulva*, Müller : GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 148, pl. v, f. 47.
- Post }  
Sept. } *Helix (Helicella) fulva*, Müller : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 46, pl. xvii, f. 2.
1842. *Helix (Petasia) Fabricii*, Beck : MÖLLER, *Index Moll. Græn.*, p. 4.
1845. *Helix (Helicella) fulva*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 65, pl. vii, f. 18.
1847. *Polygyra (Petasia) trochiformis* : } GRAY, *Proc. Zool. Soc.*  
1847. *Polygyra (Conulus) fulva* : } *London*, 1847, p. 173.<sup>6</sup>
1847. *Helix (Petasina) fulva* (Müll.), Beck : BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Conulus) fulva*, Drap. : ALBERS, *Heliceen*, p. 73.
1852. *Helix fulva*, Müller : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 75, p. cxviii, f. 8 & 9.
1852. *Teba fulva*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 72.
1855. } *Zonites (Conulus) fulvus*, Müll. : H. & A. ADAMS, *Genera*  
Jan. } *Moll.*, ii, p. 116.
1855. } *Zonites (Conulus) fulvus*, Müll. : MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 67, pl. viii, f. 1-4.
1857. *Zonites fulvus*, Müller : GRAY, *Turton's Manual*, new ed., p. 99, pl. v, f. 47.
1860. *Hyalina (Conulus) fulva*, Drap. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 73.
1862. *Zonites fulvus*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 171 ; v, pl. x, f. 4.

1863. *Helix fulva*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 80, figs.
1864. *Hyalinia (Petasia) fulva*, Müll. : MÖRCH, *Synop. Moll. Daniæ*, p. 14.
- \*1864. *Conulus chersinus* : MORSE, *Journ. Portland Soc. Nat. Hist.*, i, p. 19, f. 44 & 46. [Non Say.]
1866. *Helicella fulva* : TATE, *Moll. Gt. Brit.*, p. 110, pl. vii, f. 56.
1876. *Hyalina (Conulus) fulva*, Müller : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 81, f. 36.
- 1883, } *Euconulus fulvus* [Müll.] : REINHARDT, *Sitzb. Gesell. June.* } *Naturf. Freunde, Berlin*, 1883, p. 86.
- 1883, } *Hyalinia (Conulus) trochiformis* (Montagu) : WESTER- Dec. } LUND, *Nachrbl. Deutsch. Malak. Gesell.*, xv, p. 174.
1886. *Conulus (Trochulus) fulvus* (Müll.), Drap. : WESTERLUND, *Fauna Palæarct. Region*, i, p. 26.
1886. *Trochulus [fulvus, Müll.]* : WESTERLUND, *o. c.*, Beil. iii, p. 16. [Subsequently Westerlund reverted to *Conulus*.]
1890. *Arnouldia fulva* [Müll.] : BOURGUIGNAT, *Bull. Soc. Malac. France*, vii, p. 331, pl. viii, f. 1.
1890. *Arnouldia mandralisci* [Bivona] : BOURGUIGNAT, *t. c.*, p. 334, pl. viii, f. 10.
1890. *Arnouldia Mortoni* [Jeffr.] : BOURGUIGNAT, *t. c.*, p. 335, pl. viii, f. 14.
1891. *Vitrea (Conulus) fulva*, Müller : SMITH, *Journ. of Conch.*, vi, p. 339.
1905. *Trochulus trochiformis*, Westerlund : DALL, *Harriman Alaska Exped.*, xiii, p. 41. [Non Westerlund.]
1908. *Hyalinia (Euconulus) fulva* (Müller) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 118, pl. xv.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 9).

British Distribution in Time : Cromerian to Recent.

Fam. : ZONITIDÆ.

(Sub-fam. : ARIOPHANTINÆ.)

Genus : 1. ZONITOIDES, Lehmann.

Etym. :—Gr. ζώνη + εἶδος, resembling a belt.

Type :—*Helix nitidus*, Müller.

(*Helix, Helicella, Zonites*, vett. auctt.)

1821. *Helicella [pars]* : FÉRÜSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 41 (June ed., p. 37).



1833. *Oxychilus* [pars]: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100. [*Non Oxycheila*, Dejean, 1825 (Coleopt.).]
1837. *Hyalina*, Ag. (Msc.), subg. of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 13.
1837. *Polita* [pars]: HELD, *Isis*, xxx, hft. 12, col. 916.
1850. *Hyalina*, Fér., subg. 3 of *Helix* [pars]: ALBERS, *Heliceen*, p. 66. [*Non Férussac*, who used "Hyalinæ" as the name for a group of his subg. *Helicella*.] [*Non Hyalina*, Schumacher, 1817 (Margi-nellidæ); *nec* Studer, 1820 (*Vitrina*).]
1855. *Aplostoma*, subg. III of *Zonites* [pars]: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 72.
1862. *Zonitoides*: LEHMANN, *Malak. Blätt.*, ix, p. 111.
1891. *Vitrea*, Fitz. [pars]: SMITH, *Journ. of Conch.*, vi, p. 339.

### 1. *Zonitoides nitidus* (Müller).

Etym.—Lat. *nitidus*, shining.

1774. *Helix nitida*: MÜELLER, *Verm. Hist.*, ii, p. 32.
1789. *Helix succinea*, n. sp.: STUDER, in Coxe, *Trav. in Switzer-land*, iii, p. 385. [*Nom. nud.*]
1791. *Helix nitens*: GMELIN, *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3633.
1801. *Helix nitida* (Müll.): DRAPARNAUD, *Tabl. Moll. France*, p. 96, no. 47.
1805. *Helix lucida*: DRAPARNAUD, *Hist. Moll. France*, p. 103, pl. viii, f. 11 & 12. [Alder (*Mag. Zool. & Bot.*, ii, 1837, p. 107) says that there is no doubt as to the identity of Draparnaud's *lucida* with the *nitida* of Müller.]
1812. *Helix lucida*, mihi: ALTEN, *Syst. Abhandl.*, p. 72, pl. viii, f. 15.
1813. *Helix nitens* [Gmelin. pars]: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54.
1817. *Helix nitida*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 912.
- ?1817. *Helix tenuis*, Gmelin: DILLWYN, *t. c.*, p. 913.
1821. *Helix (Helicella) nitida*, Muller et Studer: FÉRUSSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41).
1821. *Helix succinea*: HARTMANN, *Neue Alpina*, i, p. 234.
- ?1826. *Helicella nitida*: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 72.
1830. *Helix nitida*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 339.
1831. *Helix nitens* [Maton & R.]: TURTON, *Manual*, p. 55, f. 38.
1831. *Zonites lucidus*, Leach: TURTON, *o. c.*, p. 55, in synonym. [*Non* Leach.]



1833. *Orychilus lucidus*, mihi [pars]: FITZINGER, *Beitr. Landesg.*  
*Oesterr.*, iii, p. 100.
1837. *Helix (Hyalina) lucida*, Drap.: CHARPENTIER, *Neue*  
*Denkschr. Allg. Schweiz. Gesell.*, i [no. 2],  
p. 13.
1837. *Helix (Helicella) nitida*, O. Müll.: BECK, *Index Moll.*, p. 6.
1837. *Helix (Helicella) succinea*, Hartm.: BECK, *o. c.*, p. 7.
1837. *Polita lucida*, Drap.: HELD, *Isis*, xxx, hft. 12, col. 916.
1840. } *Zonites lucidus*, Drap.: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 175, pl. iv, f. 38.
- Post }  
Sept. } *Helix lucida*, Drapernaud: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 52, pl. xviii\*, f. 3 & 4.
1845. *Helix lucida*, Drapernaud: BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 83, pl. ix, f. 7 & 8.
1850. *Helix (Hyalina) nitida*, Müll.: ALBERS, *Heliceen*, p. 66.
1852. *Zonites nitidus*, Müller: FORBES & HANLEY, *Hist. Brit.*  
*Moll.*, iv, p. 39, pl. cxx, f. 4 & 7.
1855. } *Helicella nitida*, Müll.: H. & A. ADAMS, *Genera Moll.*,  
Jan. } ii, p. 118.
1855. } *Zonites (Aplostoma) nitidus*, Müll.: MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 72, pl. vii, f. 11-15.
1857. *Zonites lucidus*, Drap.: GRAY, *Turton's Manual*, new  
ed., p. 96, pl. iv, f. 38.
1858. *Helicella lucida*: BELLAIRS, *Illust. Cat. Brit. Shells*, p. 16,  
f. 38.
1860. *Hyalina lucida*, Drap.: MARTENS, in Albers, *Heliceen*,  
ed. 2, p. 69.
1862. *Zonites nitidus*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 167;  
v, pl. x, f. 1.
1863. *Zonites nitidus*, Müller: REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 51, figs.
1866. *Hyalina nitida*, Müller: TRYON, *Amer. Journ. Conch.*,  
ii, p. 250, pl. iv, f. 24.
1873. *Zonitoides nitidus*, Müll.: LEHMANN, *Lebend. Schnecken*  
*Stettins*, p. 71.
1886. *Hyalina (Zonitoides) nitida*, Müll.: WESTERLUND, *Fauna*  
*Paläarct. Region*, i, p. 39.
1886. } *Zonites (Hyalina) nitida*, Müller: TRYON, *Man. Conch.*,  
July. } Ser. II, vol. ii, p. 171, pl. liii, f. 27, 28, 29-32.
1891. *Vitrea (Zonitoides) nitida*, Müller: SMITH, *Journ. of*  
*Conch.*, vi, p. 339.
1908. *Zonitoides nitidus* (Müller): TAYLOR, *Monog. Moll. Brit.*  
*Is.* [iii], p. 141, pl. xv.

First recorded as British in 1803, by G. Montagu (*Test.*  
*Brit.*, p. 425), who described it as closely resembling  
the *Helix lucida* of Pulteney, but did not name it.  
British Distribution in Time: Cromerian to Recent.

2. *Zonitoides excavatus* (Bean MS., Alder).

Etym. :—Lat. *excavatus*, dug out.

1830. *Helix nitida*, var.  $\alpha$  : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 339 & 511.
1830. *Helix excavata*, Bean MS. : ALDER, *Trans. Nat. Hist. Soc. Northumb.*, i, p. 38.
1831. *Helix lucida*, var. : TURTON, *Manual*, p. 57.
1840. } *Zonites excavatus*, Bean : GRAY, *Turton's Manual*, new  
Apr. } ed., p. 175, pl. xii, f. 138.
- Post } *Helix (Hyalinæ) excavata*, Bean : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 53, pl. xviii\*, f. 9 & 10.
1840. }
1845. *Helix (Hyalinæ) excavata*, Bean : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 85, pl. ix, f. 13 [15 on the pl.] & 14.
1852. *Zonites excavatus*, Bean : FORBES & HANLEY, *Brit. Moll.*, iv, p. 40, pl. cxxi, f. 2-4.
1857. *Zonites excavatus*, Bean MS. : GRAY, *Turton's Manual*, new ed., p. 97, pl. xii, f. 138.
1860. *Hyalina excavata*, Bean : MARTENS, in Albers, *Heliceen*, ed. 2, p. 69.
1862. *Zonites excavatus*, Bean : JEFFREYS, *Brit. Conch.*, i, p. 168; v, pl. x, f. 2.
1863. *Zonites excavatus*, Bean : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 52, figs.
1866. *Helicella excavata* : TATE, *Moll. Gt. Brit.*, p. 108, pl. vii, f. 52.
1886. *Hyalinia (Zonitoides) excavata* (Bean) Alder : WESTERLUND, *Fauna Paläarct. Region*, i, p. 40.
1886. } *Zonites (Hyalinia) excavata*, Bean : TRYON, *Man. Conch.*,  
July. } Ser. II, vol. ii, p. 153, pl. xlix, f. 4 & 5.
1891. *Vitrea (Zonitoides) excavata*, Bean : SMITH, *Journ. of Conch.*, vi, p. 339.
1908. *Zonitoides excavatus* (Bean) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 133, pl. xv.

First recorded as British in 1830, by J. G. Jeffreys, as *Helix nitida*, var.  $\alpha$ . (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

(Sub-fam. : ZONITINÆ.)

Genus : 2. **HELICELLA**, Férussac.<sup>1</sup>

Etym. :—Lat. dimin. of *helix*, from Gr. ἑλιξ, a snail.

Type :—*Helix cellaria*, Müller, selected by Gray, 1847.

(*Helix*, *Zonites*, vett. auctt.)

1815. *Vortex* [pars] : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 314.  
[Non Humphrey, 1797.]

<sup>1</sup> Reversion to this name favoured by GUDE & WOODWARD for reasons given. See *Proc. Malac. Soc. Lond.*, xiv., 1921, p. 175.

1821. *Helicella*, Lam.,<sup>1</sup> Sect. Aplostomæ (Hyalinæ): FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 41 (June ed., p. 37).
1833. *Oxychilus* [pars]: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100. [*Non Oxycheila*, Dejean, 1825 (Coleopt.).]
1837. *Hyalinia*, Ag. (Msc.) subg. of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 13.
1837. *Polita* [pars]: HELD, *Isis*, xxx, hft. 12, col. 916.
1837. *Helicella*, subg. 1 of *Helix*: BECK, *Index Moll.*, p. 6.
1838. *Helicella* [as genus]: BECK, *Index Moll.*, spec. nov., p. 7.
1850. *Hyalina*, Fér., subg. 3 of *Helix* [pars]: ALBERS, *Heliceen*, p. 66. [*Non Férussac*, who used "Hyalinæ" as the name for a group of his subg. *Helicella*.] [*Non Hyalina*, Schumacher, 1817 (Marginellidæ); *nec* Studer, 1820 (*Vitrina*).]
- 1855, } *Lucilla*, subg. of *Helix*: LOWE, *Proc. Zool. Soc. Lond.*,  
Mar. } 1854, p. 177, type *H. cellaria*, Müller.
- 1855, } *Aplostoma*, subg. III of *Zonites* [pars]: MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 72.
1891. *Vitrea*, Fitz. [pars]: SMITH, *Journ. of Conch.*, vi, p. 339.

Sub-gen. : **Helicella**, s.s.

1857. *Euhyalina*: ALBERS, *Malak. Blatt.*, iv, p. 91.
1907. *Euhyalinia*: TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 18.

Sub-gen. : **Retinella** (Shuttleworth MS.), Fischer.

Etym. :—Doubtful.

Type :—*Helix olivetorum*, Gmelin, selected by Fischer.

1877. *Retinella* (Shuttl. MS.): FISCHER, *Notitiæ Malac. Shuttleworth*, ii, p. 5.
1878. *Ægopina*: KOBELT, in Rossmässler, *Icon*, vi, p. 15.

1. **Helicella** (s.s.) **draparnaldi**, Beck.

Etym. :—Named in honour of the celebrated French conchologist, Draparnaud.

1801. *Helix lucida*: DRAPARNAUD, *Tabl. Moll. France*, p. 96, no. 46. [*Non* Pulteney, 1799.]
1805. *Helix nitida*: DRAPARNAUD, *Hist. Moll. France*, p. 117, pl. viii, f. 23-25. [*Non* Müller, 1774.]
1812. *Helix nitens*, Argenville: ALTEN, *Syst. Abhandl.*, p. 58, pl. v, f. 10. [*Non* Gmelin, 1791.]

<sup>1</sup> Lamarek only used the vernacular form "Helicelle" (*Extr. Cours Zool. Anim. s. Vert.*, 1812, p. 115).

1821. *Helix (Helicella) cellaria*, Muller [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41).
1821. *Helix nitens*, var.  $\gamma$  *cellaria*: HARTMANN, *Neue Alpina*, i, p. 232.
1833. *Orychilus lucidus*, mihi [pars]: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100.
1837. *Helicella Draparnaldi*, B.: BECK, *Index Moll.*, p. 6. [Sine descript.]
1838. *Helicella Draparnaldi*, B.: BECK, *Index Moll.*, spec. nov., p. 7.
- ?1840. *Zonites cellarius*, Müller [pars]: GRAY, *Turton's Manual*, new ed., p. 170.
1841. *Helix obscurata*, Porro: PORRO, in A. & G. B. VILLA, *Disp. Syst. Conch.*, p. 56.
1852. *Zonites cellarius*, Müller [pars]: FORBES & HANLEY, *Brit. Moll.*, iv, p. 33.
1855. *Zonites (Aplostoma) lucidus*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 75, pl. viii, f. 29-35.
- ?1857. *Zonites cellarius*, Müller [pars]: GRAY, *Turton's Manual*, new ed., p. 92.
1860. *Hyalina Draparnaldi*, Beck: MARTENS, in Albers, *Heliceen*, ed. 2, p. 68.
1862. *Zonites cellarius*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 159; v, pl. ix, f. 1.
1876. *Hyalina (Euhyalina) Draparnaldii* [sic], Beck: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 69, f. 26.
1877. *Orychilus Lucidus*, Drap.: JOUSSEAUME, *Bull. Soc. Zool. France*, ii, p. 405, pl. i, f. 30-32.
1887. *Euhyalina Draparnaldi*, Beck: CLESSIN, *Moll. Oesterr.-Ungarns*, p. 70, f. 12.
1888. *Hyalinia (Polita) draparnaudi*, Beck: WESTERLUND, *Fauna Paläarct. Region*, i, p. 59.
1891. *Vitrea (Polita) draparnaudi*, Beck: SMITH, *Journ. of Conch.*, vi, p. 339.
1908. *Hyalinia (Euhyalinia) lucida*, Drap.: TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 18, pl. vi.

[GERMAIN (*Moll. France*, ii, p. 70) gives as synonyms:—*H. barbozana*, Castro; *H. gyrocurta*, Bourg.; *H. Farinesi*, Bourg.; *H. subfarinesi*, Bourg.; *H. intermissa*, Locard; *H. blondiana*, Bourg.; *H. foderiana*, Bourg.; *H. magonensis*, Bourg.; *H. disculina*, Locard; *H. recta*, Locard; *H. pictonica*, Bourg.; and *H. Terveri*, Locard.]

First recorded as British in 1862, by J. G. Jeffreys, as *Zonites cellarius*, Müller. (See ref. above.)

British Distribution in Time: Holocene and Recent.

2. *Helicella* (s.s.) *cellaria* (Müller).

Etym. :—Lat. *cellarius*, pertaining to a store room.

1774. *Helix cellaria* : MÜLLER, *Verm. Hist.*, ii, p. 28.  
 1791. *Helix cellaria*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3634.  
 1813. *Helix nitida* [Voith] : VOITH, *Sturm's Deutschl. Fauna*, vi, hft. 3, no. 14.  
 1815. *Vortex cellaria* : OKEN, *Lehrb. Naturg.*, iii, abt. 1, p. 314.  
 \*1816. *Helix glaphyra* [n. sp.] : SAY, *Nicholson's Encyclop.*, Amer. ed., iv, p. [?], pl. i, f. 3. [Reprint, 1819 (p. 2).]  
 1817. *Helix cellaria*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 913.  
 1819. *Zonites lucidus*, Pult. [pars] : LEACH, *Moll. Brit. Synop.* (proofs), p. 104.  
 1821. *Helix (Helicella) cellaria*, Muller [pars] : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41); *Hist.*, pl. lxxxiv, f. 9 & 10.  
 1821. *Helix cellaria*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 42, pl. ii, f. 29 & 30.  
 1823. *Helix cellaria* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.  
 1827. *Helix nitens*, Mat. & Rac. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 59 & 60.  
 1830. *Helix nitidula* [pars] : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 340.  
 1831. *Helix lucida*, Drap. : TURTON, *Manual*, p. 56, f. 40.  
 1833. *Orychilus cellaria*, mihi [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100.  
 1837. *Polita cellaria*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 916.  
 1837. *Helix (Helicella) cellaria*, O. Müll. : BECK, *Index Moll.*, p. 6.  
 1840, }  
 Apr. } *Zonites cellarius*, Müller : GRAY, *Turton's Manual*, new  
 Post } ed., p. 170, pl. iv, f. 40.  
 Sept. }  
 1840. } *Helix (Hyalinæ) cellaria*, Müller : BROWN, *Illust. Conch.*  
 } *Brit.*, ed. 2, p. 51, pl. xvii, f. 59 & 60.  
 1845. *Helix (Hyalinæ) cellaria*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 81, pl. ix, f. 1 & 2; xxv, f. 3.  
 1847. *Helicella cellaria* : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 174.  
 1850. *Helix (Hyalina) cellaria*, Müll. : ALBERS, *Heliceen*, p. 66.  
 1852, }  
 Jan. } *Zonites cellarius*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
 } iv, p. 33, pl. cxx, f. 1-3.  
 1852, }  
 Feb. } *Zonites lucidus*, Pult. [pars] : LEACH, *Moll. Brit. Synop.*,  
 } p. 75.  
 1855, }  
 Mar. } *Helix (Lucilla) cellaria*, Müll. : LOWE, *Proc. Zool. Soc.*  
 } *Lond.*, 1854, p. 177.  
 1855, }  
 Sept. } *Zonites (Aplostoma) cellarius*, Müll. : MOQUIN-TANDON,  
 } *Hist. Moll. France*, ii, p. 78, pl. ix, f. 1 & 2.

- 1857, } *Hyalina (Euhyalina) cellaria* [Müll.]: ALBERS, *Malak.*  
 May. } *Blätt.*, iv, p. 91.
- 1857, } *Zonites cellarius*, Müller: GRAY, *Turton's Manual*, new  
 Sept. } ed., p. 92, f. 32, pl. iv, f. 40.
1860. *Hyalina* (s.s.) *cellaria*, Müll.: MARTENS, in Albers,  
*Heliceen*, ed. 2, p. 68.
1862. *Zonites cellarius*, Müller, var. *compacta*: JEFFREYS, *Brit.*  
*Conch.*, i, p. 160.
1863. *Zonites cellarius*, Müller: REEVE, L. & F.-W. *Moll.*  
*Brit. Is.*, p. 47, figs.
1868. *Helix (Hyalina) Sydneyensis*, COX, *Monog. Austral.*  
*Land Shells*, p. 9, pl. ix, f. 16 & pl. xviii, f. 3.
1870. *Zonites navarricus* [n. sp.]: BOURGUIGNAT, *Rev. & Mag.*  
*Zool.*, Sér. II, tom. xxii, p. 20, pl. xvi, f. 10-12.
1877. *Oxychilus cellarius*, Müll.: JOUSSEAUME, *Bull. Soc. Zool.*  
*France*, ii, p. 409, pl. i, f. 39 & 40.
1886. *Hyalinia (Polita) cellaria*, Müll.: WESTERLUND, *Fauna*  
*Palaëarct. Region*, i, p. 54.
1891. *Vitrea (Polita) cellaria*, Müller: SMITH, *Journ. of Conch.*,  
 vi, p. 339.
- 1907, } *Hyalinia (Euhyalina) cellaria* (Müller): TAYLOR, *Monog.*  
 Feb. } *Moll. Brit. Is.* [iii], p. 30 pl. vi (1909).
- 1907, } *Vitrea (Hyalinia) hibernica*, n. sp.: KENNARD, *Irish*  
 Nov. } *Natural.*, xvi, p. 327, pl. xlii & figs.
1908. *Vitrea Scharffi*, n. sp.: KENNARD, *Proc. Malac. Soc.*  
*Lond.*, viii, p. 50, figs.

First recorded as British in 1685, by M. Lister (*Hist.*  
*Conch.*, i, pl. lxxi, two upper figures).

British Distribution in Time: Pleistocene to Recent.

### 3. *Helicella* (s.s.) *rogersi*, B. B. Woodward.

Etym.:—Named in honour of its discoverer, T. Rogers.

1833. *Helix alliacca*, var.  $\alpha$ : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
 p. 511.
1837. *Helix alliaria*, var. *glabra*, Studer?: ALDER, *Mag. Zool.*  
*Bot.*, ii, p. 108. [Cf. Jackson & Kennard,  
*Journ. of Conch.*, xii, 1907, p. 63.]
- 1840, } *Zonites (Hyalina) allarius*, var. 2 *glabra*, Studer: GRAY,  
 Apr. } *Turton's Manual*, new ed., p. 169.
- Post }  
 Sept. } *Helix (Hyalina) alliaria*, var. 1 *glabra*, Studer: BROWN,  
 1840. } *Illust. Conch. Brit.*, ed. 2, p. 52.
1845. *Helix (Hyalina) alliaria*: BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 82.
1857. *Zonites (Aplostoma) allarius*, var. 2 *glabra*, Studer:  
 GRAY, *Turton's Manual*, new ed., p. 91.



1870. *Zonites glaber*, Studer : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. IV, vol. v, p. 345.
1887. *Hyalina (Euhyalina) subglabra*, Bourguignat : CLESSIN, *Moll. Oesterr.-Ungarns.*, p. 72. [*Non* Bourguignat.]
1891. *Vitrea (Polita) glabra*, Studer : SMITH, *Journ. of Conch.*, vi, p. 339.
1896. *Hyalinia helvetica*, Blum : ADAMS, *Collector's Manual*, ed. 2, p. 47, pl. ii, f. 6. [*Non* Blum.]
1903. *Vitrea Rogersi*, n. sp. : B. B. WOODWARD, *Journ. of Conch.*, x, p. 310, pl. vi, f. 2, 5, 11-13.
1907. *Hyalinia (Euhyalinia) helvetica* (Blum) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 45, pl. vi. [*Non* Blum.]

First recorded as British in 1837, by J. Alder, as *Helix alliaris*, var. *glabra*, Studer ?. (See ref. above.)

British Distribution in Time : Holocene and Recent.

#### 4. *Helicella* (s.s.) *alliaris* (Miller).

Etym. :—Lat. *allium*, garlic.

1822. *Helix alliaris*, nobis : MILLER, *Ann. Phil.*, N.S. iii, p. 379.
1823. *Helix nitens* [Maton & R.] : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 160.
- ?1827. *Helix fœtida*, BROWN'S MS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 48 & 52.
1828. *Helix fœtida*, BROWN : STARK, *Elem. Nat. Hist.*, ii, p. 59.
1830. *Helix alliacea* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 341.
1831. *Helix alliaris* : TURTON, *Manual*, p. 56, f. 39.
1837. *Helix (Helicella) alliaris*, Miller : BECK, *Index Moll.*, p. 7.
1840. } *Zonites (Hyalinæ) alliaris*, Miller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 168, pl. iv, f. 39.
- Post }  
Sept. } *Helix (Hyalinæ) alliaris*, Miller : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 52, pl. xvii, f. 48 & 52.
1845. *Helix (Hyalinæ) alliaris* : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 82, pl. ix, f. 3 & 4.
1850. *Helix (Hyalina) alliaris*, Müll. [sic] : ALBERS, *Heliceen*, p. 66.
1852. *Zonites alliaris*, Miller : FORBES & HANLEY, *Brit. Moll.*, iv, p. 34, pl. cxx, f. 5 & 6.
1855. } *Helicella alliaris*, Müll. [sic] : H. & A. ADAMS, *Genera*  
Jan. } *Moll.*, ii, p. 118.
1855. } *Zonites (Aplostoma) alliaris*, Miller : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 83, pl. ix, f. 9-11.
1857. } *Zonites (Aplostoma) alliaris*, Miller : GRAY, Turton's  
Sept. } *Manual*, new ed., p. 90, pl. iv, f. 39.



1857. *Helicella Steenstrupii*, n. sp.: MÖRCH, in Rink's *Grønland*, ii, Append., p. 75.
1860. *Hyalina alliaria*, Miller: MARTENS, in Albers, *Heliceen*, ed. 2, p. 68.
1862. *Zonites alliarius*, Miller: JEFFREYS, *Brit. Conch.*, i, p. 161; v, pl. ix, f. 2.
1863. *Zonites alliarius*, Miller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 48, figs.
1876. *Hyalina (Euhyalina) alliaria*, Miller: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 72, f. 29.
1888. *Hyalinia (Polita) alliaria*, Miller: WESTERLUND, *Fauna Paläarct. Region*, i, p. 53.
1891. *Vitrea (Polita) alliaria*, Miller: SMITH, *Journ. of Conch.*, vi, p. 339.
1908. *Hyalinia (Euhyalinia) alliaria* (Miller): TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 57, pl. vi.

[GERMAIN (*Moll. France*, ii, pp. 69–70) gives as synonyms: *H. amblyopa*, Bourg.; and *H. apothecia*, Bourg.]

First recorded as British in 1822, by J. S. Miller. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

##### 5. *Helicella (Retinella) nitidula* (Draparnaud).

Etym.:—Lat. dimin. of *nitidus*, shining.

17199. *Helix lucida* [pars]: PULTENEY, *Cat. Dorset.*, p. 47.
1803. *Helix lucida*, Pult.: MONTAGU, *Test. Brit.*, p. 425; Suppt., pl. xxiii, f. 4.
- [According to Montagu (*Test. Brit.*, Suppt., p. 145) this species occurred in the Portland Collection under the names of:—*Helix glabella*, *H. lucida*, and *H. minuta*.]
1805. *Helix nitidula*: DRAPARNAUD, *Hist. Moll. France*, p. 117.
1807. *Helix nitens* [Gmelin. pars.]: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 198, pl. v, f. 7.
1813. *Helix nitens* [Gmelin. pars.]: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xix, f. 22.
1819. *Zonites lucidus*, Pult. [pars.]: LEACH, *Moll. Brit. Synop.* (proofs), p. 104.
1821. *Helix (Helicella) nitidula*, Draparnaud: | FÉRUSSAC,
1821. *Helix (Helicella) nitens*, Maton & Rackett: | *Tabl. syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41).
1821. *Helix nitens*, var.  $\alpha$ : HARTMANN, *Neue Alpina*, i, p. 232.
1830. *Helix nitidula*, Drap.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 340.
1831. *Helix nitens*, nobis: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 44, pl. xv, f. 1–5.
1833. *Orychilus nitidulus*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100.

- 1837, } *Helix nitidula*, Drap., var. *Helmii*, Gilbertson MS. :  
 Aug. } ALDER, *Mag. Zool. Bot.*, ii, p. 107.
1837. *Helix (Helicella) lucida*, Montag. : } BECK, *Index Moll.*,  
 1837. *Helix (Helicella) nitidula*, Drap. : } p. 6.
1837. *Helix (Hyalina) nitens*, Mich. & Fér. : } CHARPENTIER,  
 1837. *Helix (Hyalina) nitidula*, Drap. : } *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 13.
1837. *Polita nitens*, Mich. : }  
 1837. *Polita nitidula*, Fér. : } HELD, *Isis*, xxx, hft. 12, col. 916.
- 1840, } *Zonites nitidulus*, Drap. : GRAY, *Turton's Manual*, new  
 Apr. } ed., p. 172, pl. xii, f. 136 & 136\*.
- 1840, }  
 Apr. } *Helix Helmii*, Gilbertson MS. : GRAY, *o. c.*, p. 173.
- Post }  
 Sept. } *Helix (Hyalina) nitidula*, Draparnaud : BROWN, *Illust.*  
 1840. } *Conch. Brit.*, ed. 2, p. 52, pl. xviii\*, f. 1 & 2.
- ?1845. *Helix (Hyalina) nitidula*, Draparnaud : BROWN, *Illust.*  
*L. & F.-W. Conch. Brit.*, p. 82, pl. ix, f. 5  
 & 6.
- ?1847. *Helix lineata*, Ch. : NARDO, *Sinon. Species Chiareghini*,  
 col. 85.
1850. *Helix (Hyalina) nitidula*, Drap. : } ALBERS, *Heliceen*, p.  
 1850. *Helix (Hyalina) nitens*, Mich. : } 66.
- 1852, } *Zonites nitidulus*, Draparnaud : FORBES & HANLEY,  
 Jan. } *Brit. Moll.*, iv, p. 36, pl. cxx, f. 8-10.
- 1852, } *Zonites lucidus*, Pult. [pars] : LEACH, *Moll. Brit. Synop.*,  
 Feb. } p. 75.
1853. *Helix pudiosa*, Ziegl. [MS.] : PFEIFFER, *Mon. Helic.*  
*vivent.*, iii, p. 86.
- 1855, } *Helicella nitidula*, Drap. : H. & A. ADAMS, *Genera Moll.*,  
 Jan. } ii, p. 118.
- 1855, } *Zonites (Aplostoma) nitens*, Gmel. : MOQUIN-TANDON,  
 Sept. } *Hist. Moll. France*, ii, p. 84, pl. ix, f. 14-18.
1857. *Zonites nitidulus*, Drap. : GRAY, *Turton's Manual*, new  
 ed., p. 94, pl. xii, f. 136 & 136\*.
1860. *Hyalina nitens*, Michaud. : MARTENS, in Albers, *Heliceen*,  
 ed. 2, p. 68.
1860. *Hyalina nitidula*, Drap. : MARTENS, *o. c.*, p. 69.
1862. *Zonites nitidulus*, Drap. : JEFFREYS, *Brit. Conch.*, i,  
 p. 163; v, pl. ix, f. 3.
1863. *Zonites nitidulus*, Drap. : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 49, figs.
1870. *Helicella nitens*, Mich. : BRUSINA, *Contrib. Malac.*  
*Croatie*, p. 18.
1876. *Hyalina (Polita) nitens*, Mich. : CLESSIN, *Deutsch. Excur.*  
*Moll. Fauna*, p. 71, f. 28.
1877. *Orychilus pudiosus*, Ziegl. : JOUSSEAUME, *Bull. Soc. Zool.*  
*France*, ii, p. 412, pl. i, f. 41 & 42.
1888. *Hyalina (Polita) nitidula*, Drap. : WESTERLUND, *Fauna*  
*Paläarct. Region*, i, p. 57.

1888. *Hyalina (Polita) nitens*, Mich.: WESTERLUND, *t. c.*, p. 64.  
 1891. *Vitrea (Polita) nitidula*, Drap.: SMITH, *Journ. of Conch.*, vi, p. 339.  
 1908. *Hyalinia (Polita) nitidula* (Draparnaud): TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 67, pl. vi.

[GERMAIN (*Moll. France*, ii, p. 70) gives as synonyms of this species, which he identifies with *H. nitens*, Gmelin:—*H. epipedostoma*, Bourg.; *H. subnitens*, Bourg.; *H. stilpna*, Bourg.; *H. Dutaillyi*, Mab.; *H. demiranda*, Bourg.; *H. Jourdheuli*, Ray; *H. lenaploa*, Bourg.; *H. cuzyensis*, Bourg.; *H. bourgetica*, Bourg.; and *H. atonolena*, Bourg.]

First recorded as British in 1803, by G. Montagu, as *Helix lucida*, Pult. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

#### 6. *Helicella (Retinella) pura* (Alder).

Etym.:—Lat. *purus*, clear.

1805. *Helix nitidula*, var.  $\beta$ : DRAPARNAUD, *Hist. Moll. France*, p. 117, pl. viii, f. 21 & 22.  
 [Renamed by Férussac *nitidosa*. See infra. Jeffreys, *Brit. Conch.*, i, p. 310, states that Draparnaud's examples consisted of two *H. radiatula*, and one *H. pura*.]
1821. *Helix (Helicella) nitidosa*, nobis [*n. nud.*]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41).  
 [Alder, *Mag. Zool. Bot.*, ii, p. 108, makes this a variety of his *pura*.]
- ?1830, { *Helix (Helicella) viridula*, mihi: MENKE, *Synop. Moll.*,  
 Apr. { ed. 2, p. 20. [*Teste* Moquin-Tandon and Gray (1857).]
1830. *Helix nitidula*, var.  $\beta$ : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 340.
1830. *Helix pura*, mihi: ALDER, *Trans. Nat. Hist. Soc. Northumb.*, i, p. 36.
1831. *Helix pura*, Alder: TURTON, *Manual*, p. 59, f. 43.
1833. *Helix nitidula*, var.  $\alpha$ : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 511.
1837. *Helix lenticula*, mihi: HELD, *Isis*, xxx, hft. 4, col. 304.  
 [? = his *Polita lenticularis*, col. 916.]
1837. *Polita nitidosa*, Fér.: HELD, *t. c.*, hft. 12, col. 916.
1837. *Helix (Helicella) nitidosa*, Fér. [? pars]: BECK, *Index Moll.*, p. 6.
1837. *Helix (Helicella) viridula*, Mk.: BECK, *o. c.*, p. 7.
- 1840, { *Zonites purus*, Alder: GRAY, *Turton's Manual*, new ed.,  
 Apr. { p. 171, pl. iv, f. 43.

- Post  
Sept. } *Helix (Hyalina) pura*, Alder : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 53, pl. xviii\*, f. 11 & 12.
1845. *Helix (Hyalina) pura*, Alder : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 86, pl. ix, f. 15 & 16.
1847. *Helix (Helicella) diaphanella*, Krynick : BECK, *Amtl. Ber.*  
24. *Versam. Deutsch. Naturf.*, p. 122.  
[*Teste Mörch, Synop. Moll. Danicæ*, p. 13.]
1850. *Helix (Hyalina) pura*, Alder : ALBERS, *Heliceen*, p. 66.
1852. *Zonites purus*, Alder : FORBES & HANLEY, *Brit. Moll.*,  
iv, p. 37, pl. cxxi, f. 5 & 6.
- 1855, } *Helicella pura*, Alder : H. & A. ADAMS, *Genera Moll.*,  
Jan. } ii, p. 118.
- 1855, } *Zonites (Aplostoma) purus*, Alder : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 87, pl. ix, f. 22-25.
1857. *Zonites purus*, Alder : GRAY, *Turton's Manual*, new ed.,  
p. 93, pl. iv, f. 43.
1860. *Hyalina nitidosa*, Fér. : } MARTENS in Albers, *Heli-*  
1860. *Hyalina viridula*, Menke. : } *ceen*, ed. 2, p. 69.
1862. *Zonites purus*, Alder : JEFFREYS, *Brit. Conch.*, i, p. 164 ;  
v, pl. ix, f. 4.
1863. *Zonites purus*, Alder : REEVE, *L. & F.-W. Moll. Brit. Is.*,  
p. 49, figs.
1876. *Hyalina (Polita) pura*, Alder : CLESSIN, *Deutsch. Excur.*  
*Moll. Fauna*, p. 73, f. 30.
1888. *Hyalinia (Polita) pura*, Alder : WESTERLUND, *Fauna*  
*Paläarct. Region*, i, p. 43.
1891. *Vitrea (Polita) pura*, Alder : SMITH, *Journ. of Conch.*, vi,  
p. 339.
1908. *Hyalinia (Polita) pura*, Alder : TAYLOR, *Monog. Moll.*  
*Brit. Is.* [iii], p. 81, pl. xv.

[GERMAIN (*Moll. France*, ii, p. 67) gives as synonyms :—  
*H. pilatica*, Bourg. ; *H. macralsobia*, Bourg. ;  
*H. lenarosta*, Bourg. ; and *H. Alderi*, Bourg.]

First recorded as British in 1830, by J. G. Jeffreys, as  
*Helix nitidula*, var.  $\beta$ . (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

## 7. *Helicella (Retinella) radiatula* (Alder).

Etym. :—Lat. dimin. of *radiatus*, marked with rays.

1805. *Helix nitidula*, var.  $\beta$  [pars] : DRAPARNAUD, *Hist. Moll.*  
*France*, p. 117, pl. viii, f. 21 & 22.  
[Jeffreys (*Brit. Conch.*, i, p. 310) states that Draparnaud's  
variety included two examples of this species.]
- 1821, } *Helix (Helicella) vitrina*, nobis [*n. nud.*] : FÉRUSAC,  
Jan. } *Tabl. syst. Limaçons*, Jan. ed., p. 45 (June  
ed., p. 41).  
[Alder (*Trans. Nat. Hist. Soc. Northumb.*, ii, p. 340) says  
this is the same as his *radiatula*.]

1821. } *Helix* (*Zonites*) *striatula* [*n. nud.*]: GRAY, *Lond. Med.*  
Mar. } *Repos.*, xv, p. 239.
1830. *Helix radiatula*, mihi: ALDER, *Trans. Nat. Hist. Soc.*  
*Northumb.*, i, p. 38.
- ?1831. *Helix brevipes*, Drap.: TURTON, *Manual*, p. 65, f. 50.  
[*Non* Draparnaud.]
1837. *Helix* (*Helicella*) *nitidosa*, Fér. [pars]: BECK, *Index*  
*Moll.*, p. 6.
1840. } *Zonites radiatulus*, Alder: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 173, pl. v, f. 50 ?; xii, f. 137.
- Post }  
Sept. } *Helix* (*Hyalina*) *radiatula*, Alder: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 53, pl. xviii\*, f. 5 & 6.
1845. *Helix* (*Hyalina*) *radiatula*, Alder: BROWN, *Illust. L. &*  
*F.-W. Conch. Brit.*, p. 84, pl. ix, f. 9 & 10.
1848. *Helix pura*, var.  $\beta$ : PFEIFFER, *Mon. Helic. vivent.*, i,  
p. 96.
1852. *Zonites radiatulus*, Alder: FORBES & HANLEY, *Brit.*  
*Moll.*, iv, p. 38, pl. cxxi, f. 1.
1855. *Zonites* (*Aplostoma*) *striatulus*, Gray: MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 86, pl. ix, f.  
19-21.
1856. *Helix* (*Hyalina*) *radiatula*, Ald.: PFEIFFER, *Malak.*  
*Blätt.*, ii, p. 124.
1857. *Zonites radiatulus*, Alder: GRAY, *Turton's Manual*, new  
ed., p. 95, pl. v, f. 50 ?; xii, f. 137.
1858. *Helicella radiatula*: BELLAIRS, *Illust. Cat. Brit. Conch.*,  
p. 16, f. 39.
1862. *Zonites radiatulus*, Alder: JEFFREYS, *Brit. Conch.*, i,  
p. 166; v, pl. ix, f. 5.
1863. *Zonites radiatulus*, Alder: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 50, figs.
1864. *Hyalinia hammonis*, Ström: MÖRCH, *Synop. Moll.*  
*Daniae*, p. 13. [*Non* Ström, See Kennard &  
Woodward, *Proc. Malac. Soc.*, xiv, 1920,  
p. 84.]
1871. *Zonites* (*Hyalina*) *hammonis* (Ström): WESTERLUND,  
*Nova Acta Soc. Sci. Upsal.*, Ser. III, vol. viii,  
no. 1, p. 25.
1876. *Hyalina* (*Polita*) *radiatula*, Gray: CLESSIN, *Deutsch.*  
*Exc. Moll. Fauna*, p. 75, f. 31.
1877. *Oxychilus radiatulus*, Alder: JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, ii, p. 419, pl. ii, f. 1 & 2.
1888. *Hyalinia* (*Polita*) *hammonis*, Ström: WESTERLUND,  
*Fauna Paläarct. Region*, i, p. 44.
1891. *Vitrea* (*Polita*) *radiatula*, Alder: SMITH, *Journ. of Conch.*  
vi, p. 339.
1894. *Hyalinia* (*Polita*) *radiatula*, Gray: WEISS, *Nachrbl.*  
*Deutsch. Malak. Gesell.*, xxvi, p. 150.

1908. *Hyalinia (Polita) radiatula* (Alder): TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 87, pl. xv.
- [GERMAIN (*Moll. France*, ii, 1913, p. 67) calls this species *hammonis*, and gives as synonyms:—*H. viridula*, Menke [which = *pura*] and *H. subradiatula*, Fagot.]
- [\* \* The identity of *H. petronella*, Charp., with this species is very doubtful.]
- First recorded as British in 1821, by J. E. Gray, as "*Helix Zonites striatula*, Drap." (See ref. above.)
- British Distribution in Time: Pleistocene to Recent.

Genus: 3. **VITREA**, Fitzinger.

Etym.:—Lat. *vitreus*, glassy.

Type:—*Helix diaphana* (Studer) Fitzinger.

(*Helix*, *Zonites*, vett. auctt.)

1821. *Helicella*, Lam. [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 41 (June ed., p. 37).
1833. *Discus* [pars. Err. typ. ?]: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 99.
1833. *Vitrea*: FITZINGER, *l. c.*
1837. *Hyalinia*, Ag. (Msc.), subg. 9 of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 13.
1837. *Polita* [pars]: HELD, *Isis*, xxx, hft. 12, col. 916.
1850. *Hyalina*, Fér., subg. 3 of *Helix* [pars]: ALBERS, *Heliceen*, p. 66. [Non Férussac, who used "*Hyalinæ*" as the name for a group of his subg. *Helicella*.] [Non *Hyalina*, Schumacher, 1817 (*Marginelidæ*); nec Studer, 1820 (*Vitrina*).]
- 1855, } *Crystallus*, subg. of *Helix*: LOWE, *Proc. Zool. Soc. Lond.*, 1854, p. 178. [Kobelt by an error (Rossmässler's *Icon.*, xi, p. 148) cites the date for this name as "1833."]
- 1855, } *Aplostoma*, subg. III of *Zonites* [pars]: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 72.

1. **Vitrea crystallina** (Mueller).

Etym.:—Gr. *κρυστάλλινος*, made of crystal.

1774. *Helix crystallina*: MÜLLER, *Verm. Hist.*, ii, p. 23.
1789. *Helix Chrystallina*, Muller: STUDER, in COXE, *Trav. in Switzld.*, iii, p. 384.
1791. *Helix crystallina*, Müll.: GMELIN, *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3635.
1801. *Helix crystallina*, Mull.: DRAPARNAUD, *Tabl. Moll. France*, p. 97.



1805. *Helix crystallina*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 118, pl. viii. f. 13-18.
1817. *Helix crystallina*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 909.
1819. *Zonites crystallinus*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 105.
- 1821, { *Helix (Helicella) crystallina*, Muller : FÉRUSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 45 (June ed., p. 41).
- 1821, { *Helix (Zonites) crystallina*, Drap. : GRAY, *Lond. Med. Mar. Report*, xv, p. 239.
1821. *Helix crystallina*, var. *α. eburnea* : HARTMANN, *Neue Alpina*, i, p. 234.
1821. *Helix crystallina*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 46, pl. ii, f. 36.
1829. *Helix vitrea* [n. sp.] : BROWN, *Edinb. Journ. nat. & geogr. Sci.*, p. 12, pl. i, f. 12-14.
1830. *Helix crystallina*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 341.
1831. *Helix crystallina*, Drap. : TURTON, *Manual*, p. 58, f. 42.
1831. *Zonites crystallinus* : LEACH, *Turton's Manual*, p. 58, in synon.
1833. *Discus* [err. typ. ? pro *Vitrea*] *crystallinus*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 99.
1837. *Helix (Helicella) crystallina*, O. Müll. : BECK, *Index Moll.*, p. 7.
1837. *Helix (Hyalina) crystallina*, Müll. : CHARPENTIER, *N. Denkschr. Schweiz. Gesell.*, i [no. 2], p. 13.
1837. *Polita crystallina*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 916.
- 1840, { *Zonites crystallinus*, Drap. : GRAY, *Turton's Manual*, Apr. } new ed., p. 176, pl. iv, f. 42.
- Post { *Helix (Hyalina) crystallina*, Müller : BROWN, *Illust. Sept. Conch. Brit.*, ed. 2. p. 53, pl. xviii, f. 7 & 8.
1840. } *Helix (Hyalina) crystallina*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 84, pl. ix, f. 11 & 12.
1845. } *Helix (Hyalina) crystallina*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 84, pl. ix, f. 11 & 12.
- ?1847. *Helix glumaria*, Ch. : NARDO, *Sinon. Species Chiareghini*, col. 85.
1850. *Helix (Hyalina) crystallina*, Müll. : ALBERS, *Heliceen*, p. 66.
1852. *Zonites crystallinus*, Müller : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 41, pl. cxxii, f. 1 & 2.
1852. *Zonites crystallinus*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 76.
1853. *Helix Botterii*, Parr. [MS ?] : PFEIFFER, *Mon. Helic. vivent.*, iii, p. 66, no. 221.
- 1855, { *Helicella crystallina*, Müll. : H. & A. ADAMS, *Genera Moll.*, Jan. } ii, p. 118.



- 1855, } *Helix (Crystallus) crystallina*, Müll. : LOWE, *Proc. Zool.*  
 Mar. } *Soc. Lond.*, 1854, p. 178.
- 1855, } *Zonites (Aplostoma) crystallinus*, Müll. : MOQUIN-TANDON,  
 Sept. } *Hist. Moll. France*, ii, p. 89, pl. ix, f. 26-29.
1857. *Zonites crystallinus*, Müller : GRAY, *Turton's Manual*,  
 new ed., p. 98, pl. iv, f. 42.
1860. *Hyalina crystallina*, Müll. : MARTENS, in Albers, *Heliceen*,  
 ed. 2, p. 69.
1862. *Zonites crystallinus*, Müller : JEFFREYS, *Brit. Conch.*, i,  
 p. 170; v, pl. x, f. 3.
1863. *Zonites crystallinus*, Müller : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 53, figs.
1873. *Zonites crystallina* [sic], var. *contracta*, mihi : WESTER-  
 LUND, *Fauna Moll. Sveciæ*, p. 56.
1875. *Hyalina contracta*, West. : CLESSIN, *Jahrb. Deutsch.*  
*Malak. Gesell.*, ii, p. 32, pl. ii, f. 1.
1876. *Oxychilus crystallinus*, Müller : JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, ii, p. 42, pl. ii, f. 3 & 4.
1876. *Hyalina (Vitrea) crystallina*, Müller : CLESSIN, *Deutsch.*  
*Excurs. Moll. Fauna*, p. 77, f. 33.
1876. *Hyalina (Vitrea) contracta*, Westerlund : CLESSIN, *o. c.*,  
 p. 79, f. 34.
1877. *Hyalina (Vitrea) Dubrueili*, n. sp. : CLESSIN, *Malak.*  
*Blätt.*, xxiv, p. 128, pl. i, f. 4.
1886. *Hyalinia (Vitrea) crystallina*, Müll. : WESTERLUND, *Fauna*  
*Paläarct. Region*, i, p. 32.
1886. *Hyalinia (Vitrea) contracta*, West. : WESTERLUND, *t. c.*,  
 p. 35.
1902. *Vitrea (Crystallus) crystallina*, Müll. : WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 87.
1908. *Hyalinia crystallina* (Müller) : TAYLOR, *Monog. Moll.*  
*Brit. Is.* [iii], p. 108, pl. xv.

[GERMAIN (*Moll. France*, ii, p. 74) cites as synonyms :—  
*Hyalinia humicola*, Mab., and *H. subterranea*, Bourg.]  
 First recorded as British in 1821, by J. E. Gray, as  
*Helix Zonites crystallina*, Drap. (See ref. above.)  
 British Distribution in Time : Pleistocene to Recent.

Fam. : VITRINIDÆ.

Genus : 1. VITRINA, Draparnaud.

Etym. :—Mod. Lat. based on Lat. *vitrum*, glass.

Type :—*Helix pellucida*, Müller. (Selected by Fleming, 1822.)  
 (*Helix*, vett. auctt.)

1801. *Helico-limax* [pars] : FÉRUSAC, *Mém. Soc. Méd. Émul.*  
*France*, iv, p. 390.

1801. *Vitrina*: DRAPARNAUD, *Tabl. Moll. France*, p. 98.  
 1807. *Helico-Limax*: FÉRUSSAC, *Essai méthod. Conchyl.*, p. 42.  
 1810. } *Vitrinus*: MONTFORT, *Conch. Syst.*, ii, p. 238.  
 May. }  
 1810. *Cobresia*: HÜBNER, *Mon. Test. Baier. Landschneck. Cobresia*, p. 4.  
 1820. *Hyalina*: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 86. (In reprint, "Syst. Verzeichn.," p. 11.) [Non Schumacher, 1817, a Marginellid.]  
 1821. *Helicolimax*: FÉRUSSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 25 (June ed., p. 21).  
 1821. *Limacina*: HARTMANN, *Neue Alpina*, i, p. 207.  
 1848. *Pagana*: GISTEL, *Naturg. Thierreichs f. Schulen*, p. xi and p. 168.

Sub-gen. : **Vitrina**, s.s.

1801. *Vitrina*: DRAPARNAUD, *Tabl. Moll. France*, p. 98.  
 1859. *Phenacolimax*: STABILE, *Rev. & Mag. Zool.*, Sér. II, tom. xi, p. 422.

Sub-gen. : **Semilimax**, Stabile.

Etym. :—Lat. *semi*, half + *limax*, slug.

Type :—*Vitrina elongata*, Draparnaud.

1859. *Semilimax*: STABILE, *t. c.*, supra, p. 422.  
 1892. *Vitrinopugio*: IHERING, *Zeitschr. Wissensch. Zool.*, liv, p. 401. (*Nachrbl. Deutsch. Malak. Gesell.*, xxiv, 1892, p. 133.)

1. **Vitrina** (s.s.) **pellucida** (Müller).

Etym. :—Lat. *pellucidus*, transparent.

1774. *Helix pellucida*, MÜLLER, *Verm. Hist.*, ii, p. 15.  
 1801. } *Helix diaphana*: POIRET, *Coq. Aisne*, p. 77.  
 Apr. }  
 1801. } *Vitrina pellucida* [pars]: DRAPARNAUD, *Tabl. Moll. France*, p. 98.  
 July. }  
 1802. *Helix semilimax*: FÉRUSSAC, *Naturforscher*, xxix, p. 236.  
 1805. *Vitrina pellucida*, Müll. [pars]: DRAPARNAUD, *Hist. Moll. France*, p. 119, pl. viii, f. 34–37.  
 1807. *Helico-Limax pellucida*, Müll.: FÉRUSSAC, *Essai méthod. Conchyl.*, p. 43.  
 1810. *Vitrinus pellucidus*, Drap.: MONTFORT, *Conch. Syst.*, ii, p. 239, fig. p. 238.  
 1812. *Helix limacoides*, mihi: ALTEN, *Syst. Abhandl.*, p. 85, pl. xi, f. 20.  
 1815. *Vortex pellucida*: OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 314.  
 1817. *Helix pellucida*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 947.

1818. *Hclix elliptica* [n. sp.]: BROWN, *Mem. Wernerian Nat. Hist. Soc.*, ii, p. 525, pl. xxiv, f. 8.
1819. *Vitrina Draparnaldi* [sic], Cuv. [pars]: LEACH, *Moll. Brit. Synop.* (proofs), p. 80.
1820. *Hyalina pellucida*: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 86. (In reprint, "Syst. Verzeichn.," p. 11.)
1821. *Limacina pellucida*, Drap.: HARTMANN, *Neue Alpina*, i, p. 246.
1821. *Vitrina beryllina*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 47, pl. iii, f. 1.
1827. *Vitrina pellucida*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 6, 7 & 12.
1830. *Vitrina Mülleri* [n. sp.]: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 326.
1830. *Vitrina depressa* [n. sp.]: JEFFREYS, *t. c.*, p. 327.
1830. *Vitrina elongata* [n. sp.]: JEFFREYS, *t. c.*, p. 327. [Non Drap.]
1831. *Vitrina pellucida*, Drap.: TURTON, *Manual*, p. 31, f. 21.
1831. *Vitrina elongata*, Drap.: TURTON, *o. c.*, p. 31, f. 22.
1831. *Vitrina Draparnaldi* [pars]: LEACH, *Turton's Manual*, p. 31, in synon.
1833. *Vitrina Dillwynii*, Jeffreys: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 506. [N. nov. for *elongata*, Jeffr. non Drap.]
- 1840, } *Vitrina pellucida*, Müller: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 120, pl. iii, f. 21.
- Post } *Vitrina pellucida*, Drapernaud: BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 54, pl. xvii, f. 6, 7 & 12.
1840. } *Vitrina pellucida*, Drapernaud: BROWN, *Illust. L. &*  
1840. } *F.-W. Conch. Brit.*, p. 88, pl. ix, f. 21-23;  
pl. xxv, f. 1.
1845. *Vitrina pellucida*, Drapernaud: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 88, pl. ix, f. 21-23; pl. xxv, f. 1.
1848. *Pagana pellucida*, Drp.: GISTEL, *Naturg. Thierreichs f. Schulen*, p. 168.
1852. *Vitrina pellucida*, Müller: FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 30, pl. cxxxi, f. 8-10.
1852. *Vitrina Draparnaldi* [sic], Cuv. [pars]: LEACH, *Moll. Brit. Synop.*, p. 59.
1855. *Vitrina (Heilcolimax) pellucida*, Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 52, pl. vi, f. 33-36.
1857. *Vitrina pellucida*, Müller: GRAY, *Turton's Manual*, new ed., p. 87, f. 31, pl. iii, f. 21.
1859. *Vitrina (Phenacolimax) pellucida*, Müll.: STABILE, *Rev. & Mag. Zool.*, Sér. II, tom. xi, p. 422.
1862. *Vitrina pellucida*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 156; v, pl. viii, f. 7.
1863. *Vitrina pellucida*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 39, figs.

1906. *Vitrina pellucida* (Müller) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 4, pl. ii & vi.

[GERMAIN (*Moll. France*, p. 62) gives *Vitrina Macei*, Bourg., as a synonym.]

First recorded as British in 1818, by Capt. T. Brown, as *Helix elliptica*. (See ref. above.)

British Distribution in Time : Pleistocene to Recent.

2. *Vitrina* (s.s.) *major* (Férussac).

Etym. :—Lat. *major*, greater.

(*Vitrina pellucida*, var., of most authors.)

1801. *Vitrina pellucida*, Mull. [pars] : DRAPARNAUD, *Tabl. Moll. France*, p. 98.
1805. *Vitrina pellucida*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 119, pl. viii, f. 34-37.
1807. *Helicolimax major*, nobis : FÉRUSSAC, *Essai méthod. Conch.*, p. 43.
1816. *Vitrina Draparnaldi*, Cuv. : CUVIER, *Règne Anim.*, ii, p. 405, note.
1819. *Vitrina Draparnaldi* [pars] : LEACH, *Moll. Brit. Synop.* (proofs), p. 80.
1821. *Helicolimax Audebardi*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 25 (June ed., p. 24); *Hist.*, pl. ix, f. 5.
1821. *Vitrina major* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 47, note.
1828. *Vitrina Audebardi*, Férussac : C. PFEIFFER, *o. c.*, iii, p. 55.
1830. *Vitrina Draparnaldi* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 326.
1831. *Vitrina Draparnaldi* : LEACH, in Turton's *Manual*, p. 31, in synon.
1837. *Vitrina Audebardi* (Fér.) B. : BECK, *Index Moll.*, p. 1.
1852. *Vitrina Draparnaldi* [pars] : LEACH, *Moll. Brit. Synop.*, p. 59.
1859. *Vitrina (Phenacolimax) major*, Fér. : STABILE, *Rev. & Mag. Zool.*, Sér. 11, tom. xi, p. 422.
1876. *Vitrina elliptica*, Brown : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 54, f. 17. [Non Brown.]

[GERMAIN (*Moll. France*, ii, p. 62) cites *Vitrina spreta*, Fagot, as a synonym.]

First recorded as British in 1830, by J. G. Jeffreys, as *Vitrina Draparnaldi*. (See ref. above.)

British Distribution in Time : Recent.

3. *Vitrina (Semilimax) pyrenaica* (Férussac).

Etym. :—Lat. *Pyrenaicus*, Pyrenæan.

1821. *Helicolimax pyrenaica*, nobis : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 25 (June ed., p. 21); *Hist.*, pl. ix, f. 3.
1825. *Vitrina Pyrenaica*, GRAY, *Ann. Phil.*, xxv (N.S. ix), p. 409.
1855. *Vitrina (Hyalina) Pyrenaica*, Fér. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 48, pl. vi, f. 9–13.
1859. *Vitrina (Semilimax) pyrenaica*, Fér. : STABILE, *Rev. & Mag. Zool.*, Sér. II, tom. xi, p. 422.
1876. *Vitrina Penchinati* : BOURGUIGNAT, *Spec. nov. Moll. Europ.*, p. 38. [Teste Germain.]
1904. *Vitrina pellucida*, var. *depressiuscula* : GRIERSON, *Journ. of Conch.*, xi, p. 125.
1907. *Vitrina elongata* [Drap.] : TAYLOR, *Irish Nat.*, xvi, p. 225, pl. xxvi. [Non Draparnaud.]
- 1908, } *Vitrina pyrenaica*, Fér. : BOWELL, *Irish Nat.*, xvii, p. 94,  
May. } pl. iv.
- 1908, } *Vitrina hibernica*, sp. nov. : TAYLOR, *Monog. Moll. Brit.*  
Oct. } *Is.* [iii], pt. 15, on wrappers, with figs.; also  
pt. 20, March, 1914, p. 449, figs.

First recorded as British in 1904, by P. H. Grierson, as  
*V. pellucida*, var. *depressiuscula*. (See ref. above.)  
British Distribution in Time : Recent.

Fam. : LIMACIDÆ.

Genus : 1. LIMAX, Linnæus.

Etym. :—Lat. *limax*, a slug.

Type :—*Limax antiquorum*, Férussac [= *L. maximus*, L.]. (Cf. Pilsbry, *Nautilus*, xxxv, 117.)

1758. *Limax* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 652.
1815. *Limacella* : BRARD, *Hist. Coq. env. Paris*, p. 110.
1831. *Limacellus* : TURTON, *Manual*, p. 23.
- 1855, } *Megaspis*, Krynick. MSS. ined. : GRAY, *Cat. Pulmonata*  
Apr. } *Brit. Mus.*, i, p. 163.
- 1855, } *Eulimax*, subg. II of *Limax* : MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 22.
1868. *Eulimax* [as a genus] : MALM, *Zool. Observ.*, v (Göteborgs  
*K. Vet. & Vitt. Samhäll. Handl.*, N. Tidsf.,  
x, 1870), p. 54. [Non *Eulimax*, Simroth,  
1891.]

Sub-gen. : **Limax**, s.s.

1758. *Limax* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 652.  
 1868. *Heynemannia*, subg. of *Eulimax* : MALM, *o. c.*,  
*supra*, p. 54.  
 1876. *Gestroa*, subsect. for *Limax cinereo-niger*, Wolf:  
 PINI, *Bull. Soc. Malac. Ital.*, ii, p. 83.  
 1876. *Opiliolimax*, sect. of *Eulimax* : PINI, *t. c.*, p. 92.  
 1891. *Macroheyнемannia* : SIMROTH, *Nova Acta Acad.*  
*Cæs. Leop.-Carol.*, lvi, p. 302.

Sub-gen. : **Malacolimax**, Malm.

Etym. :—Lat. *malacus*, soft + *limax*, a slug.

Type :—*Limax tenellus*, Müller.

1868. *Malacolimax* : MALM, *t. c.*, *supra*, p. 66.  
 1887. *Ambigolimax* : POLLONERA, *Boll. Mus. Zool. Univ.*  
*Torino*, ii, no. 21 [p. 3].  
 1891. *Mikroheyнемannia* : SIMROTH, *t. c.*, *supra*, p. 302.

Sub-gen. : **Limacus**, Lehmann.

Etym. :—Lat. *limax*, a slug.

Type :—*L. Breckworthianus*, Lehm. = *flavus*, Linn.

1851. *Krynickillus* [pars] : KALENICZENKO, *Bull. Soc.*  
*Nats. Moscou*, xxiv, p. 219.  
 1864. *Limacus* : LEHMANN, *Malak. Blätt.*, xi, p. 145.  
 1868. *Plepticolimax*, subg. of *Eulimax* : MALM, *t. c.*, *supra*,  
 p. 62.  
 1884. *Simrothia*, sect. 4 of *Limax* [pars] : CLESSIN, *Deutsch.*  
*Excur. Moll. Fauna*, ed. 2, p. 62.

Sub-gen. : **Lehmannia**, Heynemann.

Etym. :—Named in honour of the malacologist, Lehmann.

Type :—*Limax arborum*, Bouch.-Chant.

1863. *Lehmannia*, subg. of *Limax* : HEYNEMANN, *Malak.*  
*Blätt.*, x, p. 221.  
 1868. *Lehmannia* [as a genus] : MALM, *t. c.*, *supra*,  
 p. 83.  
 1884. *Simrothia*, sect. 4 of *Limax* [pars] : CLESSIN, *t. c.*,  
*supra*, p. 62.

1. **Limax** (s.s.) **maximus**, Linnæus.

Etym. :—Lat. *maximus*, biggest.

1758. *Limax maximus* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 652,  
 no. 3.  
 1767. *Limax maximus* : LINNÆUS, *o. c.*, ed. 12, p. 1081, no. 4.



1774. *Limax cinereus*: MÜLLER, *Verm. Hist.*, ii, p. 5.  
[Müller cites in synonym. *Limax cellaria* [sic] of Dezaillier d'Argenville.]
1789. *Limax fasciatus*: RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 267.
1791. *Limax cinereus*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3100, no. 4.
1801. *Limax cinereus*: DRAPARNAUD, *Tabl. Moll. France*, p. 102.
1805. *Limax cinereus*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 124, pl. ix [f. 10, error for] f. 11.
1815. *Limacella parma*: BRARD, *Hist. Coq. env. Paris*, p. 110, pl. iv, f. 1, 2, 9 & 10.
1817. *Limax megaspidus*: BLAINVILLE, *Journ. Phys.*, lxxxv, p. 444, pl. ii, f. 6. [Cockerell (*Ann. & Mag. Nat. Hist.*, Ser. VI, vol. vi, 1890, p. 287) says this is an albino variety of *maximus*.]
1819. *Limax antiquorum*, nobis: FÉRUSAC, *Hist. Moll.*, ii, p. 68, pl. iv.
- ?1819. *Limax alpinus*, nobis: FÉRUSAC, *Tabl. syst. Limaces*, p. 21; and *Hist. Moll.*, pl. iv A, f. 5-7. [Placed by Taylor under *cinereo-niger*, but the figures do not suggest that species at all.]
1819. *Limax antiquorum*, Féruss.: LEACH, *Moll. Brit. Synop.* (proofs), p. 70.
1819. *Limax maculatus*: LEACH, *o. c.*, p. 71.
1821. *Limax cinereus*, Müller: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 20.
1826. *Limax antiquorum*, Féruss.: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 55.
1831. *Limacella parma*, Brard: TURTON, *Manual*, p. 24, f. 14.
1836. *Limax maurus*, mihi: HELD, *Isis*, xxix, col. 272.
1837. *Limax maculatus* [n. nov.]: NUNNELEY, *Trans. Phil. Soc. Leeds*, i, p. 46, pl. i, f. 2.
1837. *Limax Cyrenæus* [n. sp.]: COMPANYO, *Bull. Soc. Philom. Perpignan*, iii, p. 88. [*L. pyrenæus* [ex err.], Comp.: Cockerell, *Conchologist*, ii, 1893, p. 171, under *L. cinereo-niger*.]
- 1840, } *Limax maximus*, Linn.: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 112, pl. iii, f. 14.
- Post } *Limax maximus*, Linnæus: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 55, pl. xviii\*, f. 17; p. 131, 1843,  
1840. } pl. lviii, f. 3.
1845. *Limax maximus*, Linnæus: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 91, pl. ix, f. 26; pl. xxvi, f. 10.
1845. *Limax sylvaticus*, Drap.: MORELET, *Moll. Port.*, p. 33. [Non Drap.]



- 1852, } *Limax cinereus*, Müller : FORBES & HANLEY, *Hist. Brit.*  
 Jan. } Moll., iv, p. 15, pl. D, D, D, f. 2.  
 1852, } *Limax antiquorum*, FÉRUS. : LEACH, *Moll. Brit. Synop.*,  
 Feb. } p. 51.  
 1852. *Limax variegatus* : LEACH, *o. c.*, p. 52.  
 1855. *Limax (Eulimax) maximus*, Linn. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 23, pl. iv, f. 1-8.  
 1857. *Limax maximus*, Linn. : GRAY, *Turton's Manual*, new  
 ed., p. 77, pl. iii, f. 14.  
 1862. *Limax maximus*, Linné : JEFFREYS, *Brit. Conch.*, i,  
 p. 137.  
 1863. *Limax cinereus*, Müller : REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 25, figs.  
 1868. *Eulimax (Heynemannia) maximus* [Linn.] : MALM, *Zool.*  
*Observ.*, v (*Göteborgs K. Vet. & Vitt. Samhäll.*  
*Handl.*, *N. Tidsf.*, x, 1870), p. 54, pl. iv,  
 f. 10 a-f.  
 1870. *Limax punctulatus* [n. sp.] : SORDELLI, *Atti Soc. Ital.*  
*Sci. Nat.*, xiii, p. 250.  
 1876. *Limacella maxima* [Linn.] : JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, i, p. 97, pl. iv, f. 1-3.  
 1876. *Limax (Eulimax) cinereus*, Lister : PINI, *Bull. Soc. Malac.*  
*Ital.*, ii, p. 80.  
 ?1882. *Limax genei*, nobis : LESSONA & POLLONERA, *Monog.*  
*Limacidi Ital.*, p. 25, pl. i, f. 1. (*Mem.*  
*Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884,  
 p. 71, pl. i, f. 1.)  
 1885. *Limax (Opibolimax) millipunctatus* [n. sp.] : PINI, *Atti*  
*Soc. Ital. Sci. Nat.*, xxvii, p. 252.  
 1891. *Limax (Heynemannia) maximus*, Linné : SIMROTH, *Nova*  
*Acta Acad. Cæs. Leop.-Carol.*, lvi, p. 304.  
 1902. *Limax maximus*, Linné : TAYLOR, *Monog. Moll. Brit. Is.*  
 [ii], p. 34, pl. vi.

[GERMAIN (*Moll. France*, ii, p. 43) states that *Krynckillus*  
*maurelianus*, Bourg., is the young of this species.]

First recorded as British in 1674, by M. Lister (*Phil.*  
*Trans.*, ix, p. 99).

British Distribution in Time : Pleistocene to Recent.

## 2. *Limax* (s.s.) *cinereo-niger*, Wolf.

Etym. :—Lat. *cinereus*, ashy + *niger*, black.

1774. *Limax cinereus*, varr.  $\alpha$  &  $\epsilon$  : MÜLLER, *Verm. Hist.*, ii,  
 pp. 5 & 7.  
 ?1789. *Limax ater* [Linn.] : RAZOUMOWSKY, *Hist. Nat. Jorat*,  
 p. 266.  
 1803. *Limax cinereo-niger*, mihi : WOLF, in Sturm's *Deutschl.*  
*Fauna*, vi, hft. 1 [p. 7], col. fig.

1819. *Limax antiquorum*, nobis [pars]: FÉRUSSAC, *Hist. Moll.*, ii, p. 68, pl. viiiD, f. 2.
1821. *Limax alpinus*, nobis: FÉRUSSAC, *Tabl. syst. Limaces*, p. 21; *Hist.*, pl. ivA, f. 5-7.
1836. *Limax maurus*, mihi: HELD, *Isis*, xxix, hft. 4, col. 272.
1840. } *Limax maximus* [pars]: GRAY, *Turton's Manual*, new  
Apr. } ed., p. 113.
1843. *Limax maximus*, var. *cinereo-niger*, Nilsson: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 131, pl. lix, f. 1.
1843. *Limax albus* [n. sp.]: PAASCH, *Archiv f. Naturg.*, Jahrg. ix, bd. i, p. 85. [Non Linnæus, 1767.]
1845. *Limax maximus*, var. 2, *cinereo-niger*, Nilsson: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 127, pl. xxvi, f. 11.
1850. *Arion lineatus* [n. sp.]: DUMONT, *Bull. Soc. Hist. Nat. Savoie*, i, p. 64.
1851. *Limax bilobatus*, Féruss. (?): RAY & DROUËT, *Rev. & Mag. Zool.*, Sér. II, tom. iii, p. 338.
1852. *Limax maximus* [pars]: FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 15.
- \*1852. *Limax lineatus*: DUMONT & MORTILLET, *Hist. Moll. Savoie*, p. 192.
1855. *Limax dacampi*, Menegazzi: MENEGAZZI, *Malac. Veronese*, p. 63, pl. i, f. 1-4.
1855. *Limax claravallensis*, Drouët: DROUËT, *Mém. Soc. R. Liège*, x, p. 144.
1855. *Limax (Eulimax) corsicus* [n. sp.]: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 26, pl. iii, f. 10-13.
1855. *Limax (Eulimax) alpinus*, Fér.: MOQUIN-TANDON, *t. c.*, p. 27, pl. iii, f. 14.
1855. *Limax (Eulimax) maximus*, var. *cinereo-niger*, Sturm: MOQUIN-TANDON, *o. c.*, ii, p. 29.
1857. *Limax maximus* [pars]: GRAY, *Turton's Manual*, new ed., p. 78.
1861. *Limax nubigenus* [n. sp.]: BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. xiii, p. 253. (*Spicileg. Malac.*, 1862, p. 20.)
1861. *Limax Doricæ* [n. sp.]: BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. xiii, p. 256, pl. viii, f. 1-11. (*Spicileg. Malac.*, 1862, p. 23, pl. xv, f. 1-11.)
1861. *Limax psarus* [n. sp.]: BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. xiii, p. 258. (*Spicileg. Malac.*, 1862, p. 26.)
1862. *Limax maximus*, var. *cinereo-niger*, Nilsson: JEFFREYS, *Brit. Conch.*, i, p. 138, in text.
1863. *Limax Engadinensis* [n. sp.]: HEYNEMANN, *Malak. Blätt.*, x, pp. 202 & 204.

1863. *Limax transilvanicus* [n. sp.]: HEYNEMANN, *t. c.*, p. 216.
1864. *Limax erythrus* [n. sp.]: BOURGUIGNAT, *Malac. Grande-Chartreuse*, p. 33, pl. ii, f. 1-8.
1867. *Limax niger*, Nobis: MALZINE, *Mém. Soc. Sci. Hainaut*, Sér. III, tom. i, p. 327, pl. iii, f. 12 & 13.
1868. *Limax* (*Heynemannia*) *cinereo-niger*: MALM, *Zool. Observ.*, v (*Göteborgs K. Vet. & Vitt. Samhäll. Handl.*, N. Tidsf., x, 1870), p. 57, pl. v, f. 12 & 13.
1871. *Limax montanus*, spec. nov.: LEYDIG, *Wurtemb. Naturw. Jahreshfte.*, xxvii, p. 225.
1873. *Limax Bielzii* [n. sp.]: SEIBERT, *Malak. Blätt.*, xxi, p. 195.
1876. *Limax* (*Eulimax*) *Strobeli*, Pini: PINI, *Bull. Soc. Malac. Ital.*, ii, p. 84, pl. B, f. 11 & 12.
1876. *Limax* (*Eulimax*) *cinereo-niger*, Wolf: PINI, *t. c.*, p. 85.
1876. *Limax* (*Plepticolimax*) *Pironæ*, Pini: PINI, *t. c.*, p. 98, pl. B, f. 5 & 6.
1876. *Limacella cinereo-niger*: JOUSSEAUME, *Bull. Soc. Zool. France*, i, p. 99, pl. iv, f. 4-6.
1880. *Limax subalpinus* [n. sp.]: LESSONA, *Atti R. Accad. Lincei*, Ser. III, Mem., vol. vii, p. 332, pl. ii, f. 1.
1881. *Limax cinereus*,  $\beta$  *intermedia*: BREVIÈRE, *Journ. de Conchyl.*, xxix, p. 314.
1881. *Limax monticola*, Bttg. n. sp.: BOETTGER, *Jahresb. Deutsch. Malak. Gesell.*, viii, p. 180, pl. vii, f. 6 a-c.
1882. *Limax perosinii*, nobis: LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 41, pl. i, f. 2-4. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 87, pl. i, f. 2-4.)
- ?1885. *Limax canapicianus*, n. sp.: POLLONERA, *Atti Accad. Sci. Torino*, xx, p. 677.
- ?1888. *Limax polipunctatus*, n. sp.: POLLONERA, *Boll. Mus. Zool. Univ. Torino*, iii, no. 51 [p. 2], pl. iii, f. 5.
1893. *Limax pyrenæus*, Comp.: COCKERELL, *Conchologist*, ii, p. 171. [Error for *L. cyreneus* = *maximus*.]
1894. *Limax hedleyi*, sp. nov.: COLLINGE, *Journ. Malac.*, iii, p. 52; iv, 1895, p. 4.
1903. *Limax cinereo-niger*, Wolf: TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 53, pl. vii.

First recorded as British in 1840, by J. E. Gray, as a var. of *L. maximus*. (See ref. above.)

British Distribution in Time: Recent.

3. *Limax (Malacolimax) tenellus*, Müller.

Etym. :—Lat. *tenellus*, delicate.

1774. *Limax tenellus* : MÜLLER, *Verm. Hist.*, ii, p. 11.  
 1791. *Limax tenellus* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3102, no. 14.  
 1801. *Limax tenellus* : DRAPARNAUD, *Tabl. Moll. France*, p. 104.  
 1805. *Limax tenellus*, Mull : DRAPARNAUD, *Hist. Moll. France*, p. 127.  
 1822. *Limax tenellus* [Müll.] : NILSSON, *Hist. Moll. Sveciæ*, p. 10.  
 1848. *Limax serotinus* [n. sp.] : SCHRENK, *Bull. Soc. Nats. Moscou*, xxi, p. 144.  
 1848. *Limax cereus*, mihi : HELD, *Jahresb. k. Kreis-Landwirth- & Gewerbs-Schule, München*, 1848-9, p. 15.  
 1852, } *Limax tenellus*, Müller : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 21, pl. F, F, F, f. 3.  
 Jan. }  
 \*1852. *Limax sylvaticus* : DUMONT & MORTILLET, *Hist. Moll. Savoie*, p. 10.  
 1852, } *Limax fulvus*, Nobis : NORMAND, *Descript. Limaces nov.*, p. 7.  
 Nov. }  
 1855. *Limax (Eulimax) tenellus*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 32.  
 1857. *Limax tenellus*, Müller : GRAY, *Turton's Manual*, new ed., p. 83.  
 1861. *Limax cinctus* [n. sp.] : HEYNEMANN, *Malak. Blätt.*, viii, p. 100. [Non Müller, 1774.]  
 1863. *Limax tenellus*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 23, fig.  
 1868. *Malacolimax tenellus* : MALM, *Zool. Observ.*, v (Göteborgs K. Vet. & Vitt. Samhäll. Handl., N. Tidsf., x, 1870), p. 66, pl. iii, f. 7.  
 1869. *Arion tenellus* [Müll.] : LETOURNEUX, *Rev. & Mag. Zool.*, Sér. II, tom. xxi, p. 50.  
 1869. *Limax tenellus*, Müll. : JEFFREYS, *Brit. Conch.*, v, p. 156.  
 1876. *Limax (Malacolimax) tenellus*, Nilsson : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 38, f. 8.  
 1876. *Limacella fulva* [Norm.] : JOUSSEAUME, *Bull. Soc. Zool. France*, i, p. 107, pl. iv, f. 13-17.  
 1876. *Limacella tenella* [Müll.] : JOUSSEAUME, *t. c.*, p. 109.  
 1882. *Agriolimax tenellus*, Nilsson : LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 45, pl. i, f. 7. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 91, pl. i, f. 7.)  
 1887. *Agriolimax (Ambigolimax) fulvus*, Normand : POLLONERA *Boll. Mus. Zool. Univ. Torino*, ii, no. 21 [p. 3].  
 1891. *Limax (Heyemannia) tenellus*, Nilsson : SIMROTH, *Nova Acta Acad. Cæs. Leop.-Carol.*, lvi, p. 302.

1903. *Limax tenellus*, Müller : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 71, pl. x, f. 1-4.

First recorded as British in 1848, by J. Alder (*Trans. Tyneside Nats. Field Club*, i, p. 124).

British Distribution in Time : Recent.

#### 4. *Limax (Limacus) flavus*, Linnæus.

Etym. :—Lat. *flavus*, yellow.

1758. *Limax flavus* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 652, no. 5.  
 1767. *Limax flavus* : LINNÆUS, *o. c.*, ed. 12, p. 1082, no. 7.  
 1774. *Limax flavus* : MÜLLER, *Verm. Hist.*, ii, p. 10.  
 1791. *Limax flavus* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3102, no. 7.  
 1791. *Limax aureus* : GMELIN, *o. c.*, p. 3102, no. 12. [*Teste Férussac.*]  
 1801. *Limax variegatus* : DRAPARNAUD, *Tabl. Moll. France*, p. 103.  
 1805. *Limax variegatus* : DRAPARNAUD, *Hist. Moll. France*, p. 127.  
 1815. *Limacella unguiculus* : BRARD, *Hist. Coq. env. Paris*, p. 115, pl. iv, f. 3, 4, 11 & 12.  
 1819. *Limax variegatus*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 72.  
 1824. *Limax megalodontes*, N. : QUOY & GAIMARD, *Voy. Uranie & Phys.*, *Zool.*, p. 426.  
 1826. *Limax variegatus*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 56.  
 1831. *Limacellus variegatus* : TURTON, *Manual*, p. 25, f. 16.  
 1831. *Limacella concava*, Brard : TURTON, *o. c.*, p. 25 [ex err. in synon. = *Agriolimax agrestis*].  
 1834? *Limax antiquorum* : SOWERBY, *Genera*, no. 41, *Limax*, fig. [*Non Férussac.*]  
 ?1836. *Parmacella variegata*, Phil. : PHILIPPI, *Enum. Moll. Sicilia*, i, p. 125.  
 1840. } *Limax flavus*, Linn. : GRAY, *Turton's Manual*, new ed.,  
 Apr. } p. 114, pl. iii, f. 16.  
 1840. } *Limacella concava*, Brard : GRAY, *o. c.*, p. 114, in synon.  
 Apr. } [ex err.].  
 Post } *Limax flavus*, Linnæus : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 55, pl. xviii\*, f. 18; p. 131 (1843),  
 1840. } pl. lix, f. 7 & 8.  
 1844. *Limax umbrosus*, Ph. : PHILIPPI, *Enum. Moll. Sicilia*, p. 102.  
 1845. *Limax flavus*, Linnæus : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 92, pl. ix, f. 27; xxv, f. 21 & 22.  
 1851. *Krynickyllus maculatus*, mihi : KALENICZENKO, *Bull. Soc. Nats. Moscou*, xxiv, no. 1, p. 226, pl. vi, f. 2.

1852. } *Limax flavus*, Linnæus : FORBES & HANLEY, *Hist. Brit.*  
 Jan. } *Moll.*, iv, p. 19, pl. E, E, E, f. 1.
1852. } *Limax variegatus*, Drap. : LEACH, *Moll. Brit. Synop.*,  
 Feb. } p. 52.
1853. *Limax Ehrenbergii* [n. sp.] : BOURGUIGNAT, *Cat. Moll.*  
*Saulcy*, p. 3.
1854. *Limax chilensis* † : HUPÉ, in Gay, *Hist. fis. Chile, Zool.*,  
 viii, p. 89.
1855. *Limax (Eulimax) variegatus*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 25, pl. iii, f. 3-9.
1855. *Limax (Eulimax) corsicus* [n. sp.] : MOQUIN-TANDON,  
*o. c.*, ii, p. 26, pl. iii, f. 10-13.
1856. *Krynickia maculata* [Kalen.] : FISCHER, *Journ. de*  
*Conchyl.*, v, p. 69.
1857. *Limax flavus*, Linn. : GRAY, *Turton's Manual*, new ed.,  
 p. 79, pl. iii, f. 16.
1861. *Limax deshaysii* [n. sp.] : BOURGUIGNAT, *Rev. & Mag.*  
*Zool.*, Sér. II, tom. xiii, p. 302. (*Spicileg.*  
*Malac.*, 1862, p. 36, pl. i, f. 1 & 2.)
1862. *Limax flavus*, Linné : JEFFREYS, *Brit. Conch.*, i,  
 p. 133.
1863. *Limax campanyi* [n. sp.] : BOURGUIGNAT, *Rev. & Mag.*  
*Zool.*, Sér. II, tom. xv, p. 179.
1863. *Limax flavus*, Linnæus : REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 24, fig.
1864. *Limacus Breckworthianus*, Lehm. : LEHMANN, *Malak.*  
*Blätt.*, xi, p. 145. [*Teste* Heynemann,  
*Malak. Blätt.*, xiv, 1867, p. 131.]
1865. *Limax bicolor*, n. sp. : SELENKA, *Malak. Blätt.*, xii, p. 105,  
 pl. ii, f. 10-17.
1868. *Limax baticus* [n. sp.] : MABILLE, *Rev. & Mag. Zool.*,  
 Sér. II, tom. xx, p. 145.
1868. *Eulimax (Plepticolimax) flavus* : MALM, *Zool. Observ.*, v  
 (*Göteborgs K. Vet. & Vitt. Samhäll. Handl.*,  
*N. Tidsf.*, x, 1870), p. 62, pl. iv, f. 11.
1876. *Limax (Plepticolimax) variegatus*, Draparnaud : CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, p. 37, f. 7.
1876. *Limacella variegata* [Drap.] : JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, i, p. 103, pl. iii, f. 11-13.
1881. *Limax ccarinatus*, Bttg. n. sp. : BOETTGER, *Jahresb.*  
*Deutsch. Malak. Gesell.*, viii, p. 186, pl. vii,  
 f. 7a-c.
1891. *Limax (Lehmannia) variegatus*, Drap. : SIMROTH, *Nova*  
*Acta, Acad. Cæs. Leop.-Carol.*, lvi, p. 307.
1903. *Limax flavus*, Linné : TAYLOR, *Monog. Moll. Brit. Is.*  
 [ii], p. 78, pl. x, f. 5-9.

First recorded as British in 1685, by M. Lister (*Hist.*  
*Conch.*, i, pl. ci b).

British Distribution in Time : Recent.



5. *Limax (Lehmannia) arborum*, Bouchard-Chantereaux.

Etym. :—Lat. *arbor*, a tree.

- ?1774. *Limax marginatus* : MÜLLER, *Verm. Hist.*, ii, p. 10.  
 ?1779. *Limax Scopulorum* : FABRICIUS, *Reise Norwegen*, p. 311.  
 ?1791. *Limax marginatus*, Müll. : GMELIN, in *Linn. Syst. Nat.*,  
 ed. 13, i, pt. 6, p. 3102.  
 1822. *Limax cinereus*, var.  $\beta$  : NILSSON, *Hist. Moll. Sveciæ*, p. 7.  
 \*1833. *Limax gagates* : BOUBÉE, *Bull. Hist. Nat. Franç.*, p. 13.  
 1835. *Limax salixium*, nob. : BOUILLET, *Ann. Scient. Acad. Sci. Clermont-Ferrand*, viii, p. 533. (In reprint, 1836, p. 18).  
 1837. *Limax arborum*, Nob. : BOUCHARD-CHANTEREAUX, *Mém. Soc. Agric. Boulogne*, Sér. II, tom. i, p. 164.  
 ?1837. } *Limax limbatus*, mihi : HELD, *Isis*, xxx, col. 303. [*Teste*  
 Apr. } Heynemann.]  
 1843. *Limax arboreus* ? Bouch.-Chant. : CLARKE, *Ann. & Mag. Nat. Hist.*, xii, p. 334, pl. xi, f. 4–10.  
 1843. *Limax glaucus*, mihi : CLARKE, *t. c.*, p. 334, in synonym.  
 1843. *Limax arboreus*, Bouchard Chantreux [*sic*] : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 131, pl. lix, f. 9–13.  
 1845. *Limax arboreus*, Bouchard Chantreux [*sic*] : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 127, pl. xxvi, f. 2–8.  
 ?1848. *Limax livonicus* [n. sp.] : SCHRENK, *Bull. Soc. Nats. Moscou*, xxi, p. 142.  
 1852, } *Limax arborum*, Bouchard-Chantereaux : FORBES &  
 Jan. } HANLEY, *Hist. Brit. Moll.*, iv, p. 17, pl. E, E, E, f. 2 [as *L. arboreus*].  
 1852, } *Limax scandens*, Nobis : NORMAND, *Descript. Limaces*  
 Nov. } *nouv.*, p. 6.  
 1852. *Limax marginatus*, Drap. : BAUDON, *Mém. Soc. Acad. Oise*, ii, pp. 94 & 128. [*Non* Draparnaud.]  
 1855. *Limax (Eulimax) arborum*, Bouch.-Chant. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 24.  
 1856. *Limax sylvaticus*, Dr. ? : GOLDFUSS, *Verhandl. Naturh. Ver. Bonn*, xiii, p. 65, pl. iii, f. 5.  
 1857. *Limax arboreum* [*sic*], Bouchard : GRAY, *Turton's Manual*, new ed., p. 82.  
 1857. *Limax salicetum*, Bouillet : GRAY, *o. c.*, in synonym.  
 1862. *Limax agrestis*, var. *saronum*, Nob. : BAUDON, *Mém. Soc. Acad., Oise*, v, p. 178 ; viii, 1871, p. 202, pl. ii, f. 1.  
 1862. *Limax arborum*, Bouchard-Chantereaux : JEFFREYS, *Brit. Conch.*, i, p. 135.  
 1863, } *Limax marginatus*, Müller : REEVE, *L. & F.-W. Moll.*  
 Jan. } *Brit. Is.*, p. 21, fig.  
 1863, } *Limax (Lehmannia) marginatus*, Müller : HEYNEMANN,  
 Oct. } *Malak. Blätt.*, x, p. 211.



1865. *Limax* (*Lehmannia*) *marginatus*, Müll. : MÖRCH, *Journ. de Conchyl.*, xiii, p. 378.
1868. *Lehmannia marginata*, Müll. : MALM, *Zool. Observ.*, v (*Göteborgs K. Vet. & Vitt. Samhäll. Handl., N. Tidsf.*, x, 1870), p. 83, pl. v, f. 14 & 15.
1870. *Limax Bettonii* [n. sp.] : SORDELLI, *Atti Soc. Ital. Sci. Nat.*, xiii, p. 251.
1876. *Limacella arborum* : JOUSSEAUME, *Bull. Soc. Zool. France*, i, p. 101, pl. iv, f. 7-9.
1876. *Amalia marginata*, Drap. : FISCHER, *Journ. de Conchyl.*, xxiv, p. 56. [Non Draparnaud.]
1877. *Limax altilis*, Fischer : FISCHER, *Journ. de Conchyl.*, xxv, p. 49.
1880. *Amalia marginata*, Drap., var. *Mongianensis*, Paulucci : PAULUCCI, *Escur. Sci. Calabria. Fauna Malac.*, p. 23.
1891. *Limax* (*Lehmannia*) *arborum*, Bouch. : SIMROTH, *Nova Acta Acad. Cæs. Leop.-Carol.*, lvi, p. 308.
1903. *Limax arborum*, Bouchard-Chantreaux : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 89, pl. x, f. 10-17.

First recorded as British in 1840, by the Rev. B. J. Clarke, in paper by W. Thompson (*Ann. & Mag. Nat. Hist.*, vi, p. 204).

British Distribution in Time : Pleistocene to Recent.

#### INCERTA SEDIS.

†*Limax* ? *modioliformis*, Sandberger.

Etym. :—Lat. *Modiola* + *-formis*, shaped like a *Modiola* shell.

1880. *Limax Modioliformis*, Sandb. : SANDBERGER, *Palaeontogr.*, xxvii (N.F. vii), p. 103, pl. xii, f. 15-15c.
1905. *Limax modioliformis*, Sandberger : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 161, fig.
1914. *Limax* (*Lehmannia*) *modioliformis*, Sandberger : KENNARD & WOODWARD, *List. Brit. Non-mar. Moll.*, p. 5.

First recorded as British in 1880, by C. L. F. von Sandberger. (See ref. above.)

British Distribution in Time : Cromerian.

#### Genus : 2. AGRIOLIMAX, Mörch.

Etym. :—Lat. *ager* + *limax*, field slug.

Type :—*Limax agrestis*, Linnæus. (Malm, 1868.)

(*Limax*, *Limacellus*, etc., vett. auctt.)

1851. *Krynickyllus* [pars] : KALENICZENKO, *Bull. Soc. Nats. Moscou*, xxiv, p. 219. [Originally proposed, without characters, as "*Krynickyia*," *Bull. Soc. Nats. Moscou*, 1839, p. 30.]

1864. *Limacellus*, subg. of *Limax*: MÖRCH, *Synop. Moll. Daniæ*, p. 7. [Non *Limacella*, Brard, 1815 = *Limax*.]  
 1865. *Agriolimax*, subg. of *Limax*: MÖRCH, *Journ. de Conchyl.*, xiii, p. 378.  
 1868. *Agriolimax* [as a genus]: MALM, *Zool. Observ.*, v (Göteborgs K. Vet. & Vitt. Samhäll. Handl., N. Tidsf., x, 1870), p. 69.

Sub-gen. : **Agriolimax**, s.s.

Sub-gen. : **Malino**, Gray.

Etym. :—Unknown.

Type :—*Limax lombricoides*, Morelet = *laviv*, Müller.

1855. *Malino* [n. gen.]: GRAY, *Cat. Pulmonata Brit. Mus.*, i, p. 178.  
 1868. *Hydrolimax*, n. gen. : MALM, *o. c.*, supra, p. 79.  
 1876. *Hydrolimax* as Gruppe 5 of *Limax*: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 42.

1. **Agriolimax** (s.s.) **agrestis** (Linnæus).

Etym. :—Lat. *agrestis*, pertaining to a field.

1758. *Limax agrestis*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 652, no. 4.  
 1767. *Limax agrestis*: LINNÆUS, *o. c.*, ed. 12, p. 1082, no. 6.  
 1774. *Limax agrestis*: MÜLLER, *Verm. Hist.*, ii, p. 8.  
 1774. *Limax reticulatus*: MÜLLER, *t. c.*, p. 10.  
 1791. *Limax agrestis*, Müll.: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3101, no. 6.  
 1801. *Limax agrestis*: DRAPARNAUD, *Tabl. Moll. France*, p. 103.  
 1805. *Limax agrestis*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 126, pl. ix, f. 9.  
 1805. *Limax sylvaticus*: DRAPARNAUD, *o. c.*, p. 126, pl. ix [f. 11, error for], f. 10.  
 1815. *Limacella obliqua*: BRARD, *Hist. Coq. env. Paris*, p. 118, pl. iv, f. 5, 6, 13, 14 & 15.  
 1815. *Limacella concava*: BRARD, *o. c.*, p. 121, pl. iv, f. 7, 8, 16, 17 & 18.  
 1819. *Limax bilobatus*, nobis: FÉRUSAC, *Hist. Nat. Moll.*, ii, p. 74, pl. v, f. 11.  
 1819. *Limax agrestis*, Linn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 74.  
 1821. *Limax agrestis*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 21.  
 1826. *Limax agrestis*: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 56.  
 1831. *Limacellus obliquus*, Brard: TURTON, *Manual*, p. 26, f. 17.

- 1840, } *Limax agrestis*, Linn. : GRAY, Turton's *Manual*, new ed.,  
Apr. } p. 117, pl. iii, f. 17.
- Post } *Limax agrestis*, Linné : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 56, pl. xviii\*, f. 20; p. 131, 1843,  
1840. } pl. lix, f. 16.
1841. *Limax tunicata* [n. sp.] : GOULD, *Rept. Invert. Massachusetts*, Moll., p. 3.
1845. *Limax agrestis*, Linné : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 93, pl. ix, f. 29; pl. xxvi, f. 9.
1848. *Limax pallidus* [n. sp.] : SCHRENK, *Bull. Soc. Nats. Moscou*, xxi, p. 143.
1851. *Krynickillus minutus*, mihi : KALENICZENKO, *Bull. Soc. Nats. Moscou*, xxiv, p. 224, pl. v, f. 3.
- 1852, } *Limax agrestis*, Müller : FORBES & HANLEY, *Hist. Brit.*  
Jan. } *Moll.*, iv, p. 13, pl. D, D, D, f. 3.
- 1852, } *Limax agrestis*, Linn. : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 54.
1855. *Limax (Eulimax) agrestis*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 22, pl. ii, f. 18-22; iii, f. 1 & 2.
1857. *Limax agrestis*, Linn. : GRAY, Turton's *Manual*, new ed., p. 80, pl. iii, f. 17.
1861. *Limax veranyanus* [n. sp.] : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. xiii, p. 262. (*Spicileg. Malac.*, p. 30, pl. xiii, f. 9.)
1862. *Limax agrestis*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 134.
- 1863, } *Limax agrestis*, Linnæus : REEVE, *L. & F.-W. Moll.*  
Jan. } *Brit. Is.*, p. 20, fig.
- 1863, } *Limax Heydeni* [n. sp.] : HEYNEMANN, *Malak. Blätt.*, x,  
Oct. } p. 210.
1865. *Limax (Agriolimax) agrestis*, L. : MÖRCH, *Journ. de Conchyl.*, xiii, p. 378.
1868. *Agriolimax agrestis* : MALM, *Zool. Observ.*, v (Göteborgs K. Vet. & Vitt. Samhäll. Handl., *N. Tidsf.*, x, 1870), p. 69, pl. iii, f. 8 & 9.
1871. *Limax (Eulimax) norvegicus*, mh. : WESTERLUND, *Nova Acta Soc. Sci. Upsal.*, Ser. III, vol. viii, no. 1, p. 17.
1874. *Limax (Agriolimax) Fedtschenkoni*, K. & H. : KOCH & HEYNEMANN, *Jahrb. Deutsch. Malak. Gesell.*, 1874, p. 153.
1876. *Limacella agrestis* : JOUSSEAUME, *Bull. Soc. Zool. France*, i, p. 105, pl. iv, f. 10-12.
1880. *Limax (Krynickillus) nicensis*, Bourg. : NEVILL, *Proc. Zool. Soc. Lond.*, 1880, p. 103. [*Teste Caziot.*]
1880. *Limax (Krynickillus) mentonicus*, n. sp. : NEVILL, *l. c.* [*Teste Caziot.*]

1882. *Agriolimax panormitanus*, nobis : LESSONA & POLLONERA. *Monog. Limacidi Ital.*, p. 52, pl. i, f. 5, (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 98, pl. i, f. 5.)
1903. *Agriolimax agrestis* (L.) : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 104, pl. xv, f. 1-4.
- [GERMAIN (*Moll. France*, ii, p. 48) cites *Limax nemorosus*, Mabilles, as a synonym.]
- First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99).
- British Distribution in Time : Pleistocene to Recent.

## 2. *Agriolimax* (*Malino*) *lævis* (Müller).

Etym. :—Lat. *levis*, smooth.

1774. *Limax lævis* : MÜLLER, *Verm. Hist.*, ii, p. 1.
1791. *Limax lævis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3099.
1801. *Limax brunneus* : DRAPARNAUD, *Tabl. Moll. France*, p. 104.
1805. *Limax brunneus* : DRAPARNAUD, *Hist. Moll. France*, p. 128.
1840. *Limax brunneus*, Drap. : GRAY, Turton's *Manual*, new ed., p. 117.
1843. *Limax campestris*, Binney : BINNEY, *Proc. Boston Soc. Nat. Hist.*, i, p. 52.
1845. *Limax lombricoides*, spec. nov. : MORELET, *Descr. Moll. Portugal*, p. 39, pl. iii, f. 4.
1851. *Krynckillius Dymczewiczii*, m. : KALENICZENKO, *Bull. Soc. Nats. Moscou*, xxiv, p. 227, pl. vi, f. 3.
- 1852, } *Limax brunneus*, Draparnaud ? : FORBES & HANLEY,  
Jan. } *Brit. Moll.*, iv, p. 20, pl. F, F, F, f. 4.
- 1852, } *Limax parvulus*, Nobis : NORMAND, *Descr. Limaces nouv.*,  
Nov. } p. 8.
- 1855, } *Malino lombricoides*, Morelet : GRAY, *Cat. Pulmon. Brit.*  
Apr. } *Mus.*, i, p. 178.
- 1855, } *Limax brunneus*, Drap. : MOQUIN-TANDON, *Hist. Moll.*  
Sept. } *France*, ii, p. 31.
1857. *Limax brunneus*, Drap. : GRAY, Turton's *Manual*, new ed., p. 82.
1862. *Limax brunneus*, Bouch.-Chant. : JEFFREYS, *Brit. Conch.*, i, p. 139.
1863. *Limax brunneus*, Draparnaud : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 22, fig.
1865. *Limax* (*Agriolimax*) *lævis*, Müll. : MÖRCH, *Journ de Conchyl.*, xiii, p. 378.
1867. *Limax arenarius*, Gassies : GASSIES, *Actes Soc. Linn. Bordeaux*, xxvi, p. 117, pl. i, f. 1.
- 1868, } *Krynckillius* (*Malino*) *brunneus* : MABILLES, *Rev. & Mag.*  
Apr. } *Zool.*, Sér. II, tom. xx, p. 141.

1868. *Hydrolimax laevis* : MALM, *Zool. Observ.*, v (Göteborgs K. Vet. & Vitt. Samhäll. Handl., N. Tidsf., x, 1870), p. 79, pl. iii, f. 6.
1869. *Limax laevis*, Müller : JEFFREYS, *Brit. Conch.*, v, p. 156.
1871. *Limax (Agriolimax) Rarotonganus*, n. sp. : HEYNEMANN, *Nachrbl. Deutsch. Malak. Gesell.*, iii, p. 43.
1873. *Limax (Malacolimax ?) brasiliensis*, n. sp. : SEMPER, *Reisen Philippinen*, Thl. II, bd. iii, p. 84, pl. xi, f. 20.
- \*1874. *Limax argentinus* : STROBEL, *Mater. Malac. Argentina merid.*, p. 6.
1875. *Limax montanus*, sp. nov. : INGERSOLL, *Bull. U.S. Geol. Surv. Territ.*, No. 2, Second Ser., p. 130.
1875. *Limax castaneus*, sp. nov. : INGERSOLL, *t. c.*, p. 131.
1875. *Limax Ingersolli* [n. nud.] : W. G. BINNEY, *Proc. Acad. Nat. Sci. Philad.*, 1875, p. 176; 1876, p. 184 note.
- Post Jan. 1876. } *Limacella Brunnea* : JOUSSEAUME, *Bull. Soc. Zool. France*, i, p. 110, pl. iv, f. 21-24.
1876. *Limax (Hydrolimax) laevis*, Müller : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 42, f. 10, 11.
1876. } *Limax hyperboreus*, nov. sp. : WESTERLUND, *Nachrbl. Deutsch. Malak. Gesell.*, viii, p. 97.
- Sept. } 1878. *Limax (Agriolimax) meridionalis*, Nob. : DOERING, *Bol. Acad. Cien. Univ. Cordoba*, i, p. 434.
1880. *Limax stenurus*, nov. sp. : STREBEL, *Beitr. Fauna Mexikan. Conch.*, iv, p. 21, pl. ix, f. 11; x, f. 3. [Teste Taylor.]
1882. *Agriolimax laevis*, Müll. : LESSONA & POLLENERA, *Monog. Limacidi Ital.*, p. 47. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 93.)
1882. *Agriolimax lacustris*, Bonelli [MS., 1822, *Limax*] : LESSONA & POLLENERA, *o. c.*, p. 47. (*Mem. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 93.) [= *Limax brunneus*, Drap. : LESSONA, *Atti Accad. Lincei*, Ser. III, Mem., tom. vii, p. 337, pl. ii, f. 25-27.]
1883. *Krinickia brunneus* : FISCHER, *Manuel Conch.*, p. 462.
1888. *Limax queenslandicus*, sp. nov. : HEDLEY, *Proc. Roy. Soc. Queensld.*, v, p. 150, figs.
1897. *Agriolimax Bevenoti*, n. sp. : COLLINGE, *Proc. Malac. Soc.*, ii, p. 295.
1905. *Agriolimax (Hydrolimax) laevis*, Müller : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 121, pl. xv, f. 5-8.
- [GERMAIN (*Moll. France*, ii, p. 48) states that *Limax Bourguignati*, Mabille, is a synonym.]
- First recorded as British in 1838, by G. Johnston (*Proc. Berwick. Nat. Club*, i, p. 154), as *Limax brunneus*.
- British Distribution in Time : Pleistocene to Recent.

Genus : 3. **MILAX**, Gray.

Etym. :—Anagram of *limax*, a slug.

Type :—*Limax gagates*, Draparnaud.  
(*Limax*, vett. auctt.)

- ?1833. *Aspidoporus* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 90.  
 1851. *Krynickillus* [pars] : KALENICZENKO, *Bull. Soc. Nats. Moscou*, xxiv, p. 219.  
 1855, } *Milax* : GRAY, *Cat. Pulmonata Brit. Mus.*, i, p. 174.  
 Apr. }  
 1855, } *Amalia*, subg. I of *Limax* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 19.  
 Sept. }  
 1876. *Amalia* [as a genus] : PINI, *Bull. Soc. Malac. Ital.*, ii, p. 104.

Sub-gen. : **Milax**, s.s.

1855. *Milax* : GRAY, *Cat. Pulmon. Brit. Mus.*, i, p. 174.  
 1868. *Lallemantia* [n. gen.] : MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xx, p. 143.  
 ?1876. *Palizzolia* : BOURGUIGNAT, *Bull. Soc. Sci. phys. & nat. Toulouse*, iii, p. 59.  
 1882. *Pirainea* : LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 57. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 103.)

Sub-gen. : **Tandonia**, Lessona & Pollonera.

Etym. :—Named in honour of Moquin-Tandon.

Type :—*Milax sowerbii* (Férussac).

1882. *Tandonia* : LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 54. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 100.)

1. **Milax** (s.s.) **gagates** (Draparnaud).

Etym. :—Gr. γαγάτης, jet, brown coal, or lignite.

1801. *Limax gagates* : DRAPARNAUD, *Tabl. Moll. France*, p. 100.  
 1805. *Limax gagates* : DRAPARNAUD, *Hist. Moll. France*, p. 122, pl. ix, f. 1 & 2.  
 1824. *Limax maurus*, N. : QUOY & GAIMARD, *Voy. Uranie, Zool.*, p. 427.  
 1826. *Limax gagates*, Drap. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 55.  
 1839. *Limax carenata*, d'Orb. : ORBIGNY, in Webb & Berthelot, *Hist. Nat. Îles Canaries*, ii, pt. 2, p. 47, pl. iii, f. 4-8.



- Post } *Limax gagates* ? var. Férussac : BROWN, *Illust. Conch.*  
 Sept. } *Brit.*, ed. 2, p. 56, pl. xviii\*, f. 21; p. 131,  
 1840. } 1843, pl. lviii, f. 4 & 5; pl. lix, f. 2-6.
1845. *Limax gagates* ? var. Férussac : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 94, pl. ix, f. 30; pl. xxv, f. 14-20.
1852. *Limax gagates*, Draparnaud : FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 24, pl. D, D, D, f. 4.
1852. *Limax fuliginosus* (Gould) : GOULD, in *U.S. Explor. Exped.*, xii, p. 5, pl. i, f. 4.
1854. *Limax carinata* [sic], d'Orb. : GRAY, *List Shells Canaries Brit. Mus.*, p. 9.
- 1855, } *Milax Gagates*, Drap. : GRAY, *Cat. Pulmonata Brit. Mus.*,  
 Apr. } i, p. 174.
- 1855, } *Milax carinatus* [sic] d'Orb. : GRAY, *t. c.*, p. 176.  
 Apr. }
- 1855, } *Milax antipodarum* [n. sp.] : GRAY, *t. c.*, p. 177.  
 Apr. }
- 1855, } *Limax (Amalia) gagates*, Drap. : MOQUIN-TANDON, *Hist.*  
 Sept. } *Moll. France*, ii, p. 19, pl. ii, f. 1-3.
1857. *Limax gagates*, Drap. : GRAY, *Turton's Manual*, new ed., p. 84.
1859. *Limax polyptychus* [n. nov.] : BOURGUIGNAT, *Aménit. Malac.*, ii, p. 143 [for *L. carenata*, d'Orb.].
1859. *Limax drymonius* [n. sp.] : BOURGUIGNAT, *l. c.*
1862. *Limax scaptobius* [n. sp.] : BOURGUIGNAT, *Spicileg. Malac.*, p. 43.
1862. *Limax gagates*, Draparnaud : JEFFREYS, *Brit. Conch.*, i, p. 131.
1863. *Limax gagates*, Draparnaud : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 19, fig.
1868. *Lallemantia polyptyela* (Bourg.) : MABILLE, *Rev. & Mag. Zool.*, Sér. II, tom. xx, p. 143.
1868. *Milax atratus* [n. sp.] : MABILLE, *t. c.*, p. 144.
1872. *Limax (Amalia) Hewstoni*, Cp. n. s. : COOPER, *Proc. Acad. Nat. Sci. Philad.*, 1872, p. 147, pl. iii, f. B1-5.
1876. *Amalia marginata*, mut. *gagates*, Drap. : PINI, *Bull. Soc. Malac. Ital.*, ii, p. 107.
1876. *Palizzolia Monterosati* [n. sp.] : BOURGUIGNAT, *Bull. Sc. Sci. phys. & nat. Toulouse*, iii, p. 59.
1881. *Milax Tasmanicus*, nov. sp. : TATE, *Papers R. Soc. Tasmania*, 1880, p. 16.
1881. *Milax nigricolus*, nov. sp. : TATE, *t. c.*, p. 17. [Tryon spells this "*nigricollus*."] ]
1882. *Amalia (Pirainca) insularis*, nobis : LESSONA & POLLONERA, *Monog. Limacidi Ital.*, p. 57, pl. i, f. 32 & 33. (*Mem. Accad. Sci. Torino*, Ser. II, tom. xxxv, 1884, p. 103, pl. i, f. 32 & 33.)



1882. *Amalia* (*Pirainea*) *doderleini*, nobis : LESSONA & POLLONERA, *o. c.*, p. 58, pl. i, f. 22-25. (*t. c.*, p. 104, pl. i, f. 22-25.)
1882. *Amalia* (*Pirainea*) *sicula*, nobis : LESSONA & POLLONERA, *o. c.*, p. 58, pl. i, f. 18-21. (*t. c.*, p. 104, pl. i, f. 18-21.)
1882. *Amalia* (*Pirainea*) *gagates*, Drap. : LESSONA & POLLONERA, *o. c.*, p. 59, pl. i, f. 14-17. (*t. c.*, p. 105, pl. i, f. 14-17.)
1882. *Amalia* (*Pirainea*) *ichnusæ*, nobis : LESSONA & POLLONERA, *o. c.*, p. 60, pl. i, f. 26 & 27. (*t. c.*, p. 106, pl. i, f. 26 & 27.)
- 1891, } *Amalia mediterranea*, nov. : COCKERELL, *Ann. & Mag.*  
Apr. } *Nat. Hist.*, Ser. VI, vol. vii, p. 331.
- 1891, } *Amalia cabiliana*, n. sp. : POLLONERA, *Bull. Mus. Zool.*  
Apr. } *Univ. Torino*, vi, no. 100, p. 4.
1896. *Amalia gagates*, Draparnaud : ADAMS, *Collect. Manual Brit. Shells*, ed. 2, p. 31.
1897. *Amalia Babori*, n. sp. : COLLINGE, *Proc. Malac. Soc. Lond.*, ii, p. 294.
1904. *Milax gagates* (Draparnaud) : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 139, pl. xv, f. 9-14.

First recorded as British in 1840, by W. Thompson (*Ann. & Mag. Nat. Hist.*, vi, p. 205, in special paragraph).  
British Distribution in Time : Pleistocene to Recent.

## 2. *Milax* (***Tandonia***) ***sowerbii*** (Férussac).

Etym. :—Named in honour of the celebrated naturalist and illustrator.

- ?1774. *Limax marginatus* : MUELLER, *Verm. Hist.*, ii, p. 10.
- ?1791. *Limax marginatus*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3102, no. 10.
1801. *Limax marginatus* : DRAPARNAUD, *Tabl. Moll. France*, p. 103.
1805. *Limax marginatus* : DRAPARNAUD, *Hist. Moll. France*, p. 124, pl. ix, f. 7.
1819. *Limax carinatus* : LEACH, *Moll. Brit. Synop.* (proofs), p. 73.
1823. *Limax Sowerbii*, nobis : FÉRUSSAC, *Hist. Nat. Moll.*, ii, p. 96<sup>s</sup>, pl. viii, f. 5 & 6.
1826. *Limax marginatus*, Drap. : RISSO, *Hist. Nat. Europ. merid.*, iv, p. 56.
1826. *Limax carinatus*, (N.) : RISSO, *t. c.*, p. 56.
1831. *Limacellus unguiculus*, Brard : TURTON, *Manual*, p. 25, f. 15. [Non Brard.]
1831. *Limax carinatus*, Leach : LEACH, in Turton's *Manual*, p. 25, in synon.

- 1840, } *Limax carinatus*, Leach : GRAY, Turton's *Manual*, new  
Apr. } ed., p. 115, pl. iii, f. 15 and text fig.
- Post }  
Sept. } *Limax carinatus*, Leach : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 55, pl. xviii\*, f. 19.
1843. *Limax Sowerbii*, Férussac : BROWN, *o. c.*, p. 131, pl. lviii,  
f. 6; pl. lix, f. 14.
1845. *Limax carinatus*, Leach : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 92, pl. ix, f. 28.
1845. *Limax Sowerbi*, Férussac : BROWN, *o. c.*, p. 128, pl. xxv,  
f. 12 & 13.
1851. *Krynickillus Eichwaldi*, mihi : KALENICZENKO, *Bull. Soc.*  
*Nats. Moscou*, xxiv, p. 226, pl. vi, f. 1.
- 1852, } *Limax Sowerbii*, Férussac : FORBES & HANLEY, *Hist.*  
Jan. } *Brit. Moll.*, iv, p. 22, pl. E, E, E, f. 3.
- 1852, } *Limax carinatus* : LEACH, *Moll. Brit. Synop.*, p. 54,  
Feb. } pl. viii, f. 3.
- 1855, } *Limax Sowerbii*, Fér. : GRAY, *Cat. Pulmonata Brit. Mus.*,  
Apr. } i, p. 175.
- 1855, } *Limax (Amalia) marginatus*, Müll. : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 21, pl. ii, f. 4-17.
1857. *Limax Sowerbii*, Férussac : GRAY, Turton's *Manual*,  
new ed., p. 83, fig. 30, and pl. iii, f. 15.
1858. *Limax argilaceus* [n. sp.] : GASSIES, *Actes Soc. Linn.*  
*Bordeaux*, xxii, p. 232.
1861. *Limax Eremiophilus* [n. sp.] : BOURGUIGNAT, *Rev. &*  
*Mag. Zool.*, Sér. II, tom. xiii, p. 303.  
(*Spicileg Malac.*, 1862, p. 38, pl. i, f. 3 & 4.)
1862. *Limax marginatus*, Müller : JEFFREYS, *Brit. Conch.*, i,  
p. 132.
1863. *Limax Sowerbyi*, Férussac : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 17, fig.
1865. *Milax marginatus*, Müll. : MÖRCH, *Journ. de Conchyl.*,  
xiii, p. 378.
1868. *Limax Etruscus* [n. sp.] : ISSEL, in Gentiluomo, *Bull.*  
*Malac. Ital.*, i, p. 69, pl. v, f. 1 & 2.
1876. *Amalia marginata*, Drap. : PINI, *Bull. Soc. Malac. Ital.*,  
ii, p. 104.
1876. *Amalia marginata*, Drap. : CLESSIN, *Deutsch. Excur.*  
*Moll. Fauna*, p. 29, f. 4.
1882. *Amalia Hessei*, n. sp. : BOETTGER, *Nachrbl. Deutsch.*  
*Malak. Gesell.*, xiv, p. 96.
1882. *Amalia (Tandonia) marginata*, Drap. : LESSONA &  
POLLONERA, *Monog. Limacidi Ital.*, p. 54,  
pl. i, f. 13. (*Mem. Accad. Sci. Torino*,  
Ser II, tom. xxxv, 1884, p. 100, pl. i, f. 13.)
1882. *Amalia (Tandonia) carinata*, Risso : LESSONA & POLLO-  
NERA, *o. c.*, p. 55, pl. i, f. 10-12, 30 & 31.  
(*t. c.*, p. 101, pl. i, f. 10-12, 30 & 31.)

1882. *Amalia (Tandonia) tyrrena*, nobis : LESSONA & POLLONERA, *o. c.*, p. 56, pl. i, f. 34-38. (*t. c.*, p. 102, pl. i, f. 34-38.)
1882. *Amalia (Tandonia) etrusca*, Issel : LESSONA & POLLONERA, *o. c.*, p. 57. (*t. c.*, p. 103.)
1896. *Amalia Sowerbyi*, Férussac : ADAMS, *Collect. Manual Brit. Shells*, ed. 2, p. 32, pl. i, f. 10.
1904. *Milax Sowerbii* (Férussac) : TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 151, pl. xv, f. 15-20.

First recorded as British in 1823, by Férussac. (*See ref. above.*)

N.B.—The species occurs in Leach's unpublished proofs circulated *c.* 1819 as *Limax carinatus*. (*See ref. above.*)

British Distribution in Time : Pleistocene to Recent.

Fam. : EULOTIDÆ.

Genus : 1. **EULOTA**, Hartmann.

Etym. :—Gr. εὖ + Lat. *lotus*, well washed.

Type :—*Helix fruticum*, Müller.

(*Helix, Fruticicola*, vett. auctt.)

1840. *Eulota* : HARTMANN, *Gasteropoden*, pp. 46 & 179, pls. lxiii & lxiv.

1. **Eulota fruticum** (Müller).

Etym. :—Lat. *frutex*, a shrub.

1774. *Helix fruticum* : MÜLLER, *Verm. Hist.*, ii, p. 71.
1791. *Helix fruticum* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3635.
1791. *Helix terrestris* : GMELIN, *o. c.*, p. 3639. [*Teste* Draparnaud and Fitzinger.]
- 1801, } *Helix cinerea* : POIRET, *Coq. Aisne*, p. 73. [*Teste*  
Apr. } Lamarek.]
- 1801, } *Helix fruticum* : DRAPARNAUD, *Tabl. Moll. France*,  
July. } p. 73.
- 1801, } *Helix Lucana*, nob. : VALLOT, *Exer. Hist. Nat.*, p. 4.  
Aug. } [*Teste* Drouët.] [*Non* Müller.]
1805. *Helix fruticum*, Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 83, pl. v, f. 16.
1807. *Helix fruticum* : G. HARTMANN, *Alpina*, ii, p. 224.
1815. *Helix fruticum* : BRARD, *Hist. Coq. Paris*, p. 58, pl. ii, f. 13.
1817. *Helix fruticum*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 925.

1821. *Helix fruticum*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 23, pl. ii, f. 3-5.
1821. *Helix (Helicella) fruticum*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 47 (June ed., p. 43).
1833. *Helicella fruticum*, Férussac : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 95.
1837. *Helix (Bradybana) fruticum*, O. Müll. : BECK, *Index Moll.*, p. 19.
1837. *Fruticicola fruticum*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 914.
1838. *Helix (Cernuella) fruticum*, m. (Müll.) : SCHLÜTER, *Kurz. syst. Verzeichn.*, p. 6.
1840. *Eulota fruticum* : HARTMANN, *Gasteropoden*, pp. 46 & 179, pls. lxiii & lxiv.
1847. *Helix Lua*, Ch. : NARDO, *Sinon. Species Chiareghini*, col. 87.
1850. *Helix (Fruticicola) fruticum*, Müll. : ALBERS, *Heliceen*, p. 70.
1855. } *Hygromia fruticum*, Müll. : H. & A. ADAMS, *Genera Moll.*,  
June. } ii, p. 214.
1855. } *Helix (Hygromia) fruticum*, Müll. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 127.
1856. *Helix (Hygromane) fruticum*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 196, pl. xvi, f. 1-4.
1860. *Fruticicola (Eulota) fruticum*, Müll. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 103.
1888. *Helix fruticola*, Nob. [n. nov.] : CHATENIER, *Cat. Moll. Drôme*, p. 9.
1889. *Helix (Eulota) fruticum*, Müll. : WESTERLUND, *Fauna Paläarct. Region*, ii, p. 152.
1909. *Eulota fruticum* (Müller) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 205, figs.

[GERMAIN (*Moll. France*, ii, p. 86) gives as synonyms :—  
*Helix mosellica*, Bourg.; *H. aubiniana*, Bourg.;  
*H. lemonia*, Bourg.; *H. subfruticum*, Locard; *H. gratianensis*, Bourg.; and *H. dunorum*, Bourg.]

First recorded as British in 1843, by J. Morris (*Cat. Brit. Foss.*, p. 147), from the Pleistocene of Stutton.  
British Distribution in Time : Pliocene (?), Pleistocene and Recent.

## Fam. : HELICIDÆ.

(Sub-fam. : HELICINÆ.)<sup>1</sup>Genus : 1. **CERNUELLA**, Schlüter.Etym. :—Lat. dimin. of *cernuus*, facing the earth.Type :—*Helix variabilis*, Draparnaud = *virgata*, DaCosta.

(Selected by Gude &amp; Woodward, 1921.)

(*Helix*, *Helicella*, vett. auctt.)1821. } *Helicella* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan.  
Jan. } ed., p. 41 (June ed., p. 37).1837. *Xerophila* [pars]: HELD, *Isis*, xxx, hft. 12, col. 913.1838. *Cernuella*: SCHLÜTER, *Kurz. syst. Verzeichn.*, p. 6.Post } *Heliomanes*: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 49.  
Sept. } [Non Newman, March, 1840 (Coleopt.).]  
1840. }1856. *Heliomane*: MOQUIN-TANDON, *Hist. Moll. France*, ii,  
p. 259.1892. *Xeroampulla*: } MONTEROSATO, *Atti Accad. Sci. Palermo*,  
*Xerofusca*: } Ser. III, vol. ii [Classe Sci., no. 2], p. 22.*Xerolauta*: }  
*Xerolincta*: } MONTEROSATO, *t. c.*, p. 23.*Xerolata*: }*Xerovaria*: }*Xerambiguous*: }*Xerolutea*: }*Xeromagna*: } MONTEROSATO, *t. c.*, p. 24.*Xeropicta*: }*Xerobulla*: }*Xeromunda*: }*Xerocauta*: } MONTEROSATO, *t. c.*, p. 25.*Xerovera*: }*Xerolissa*: }1. **Cernuella virgata** (DaCosta).Etym. :—Lat. *virgatus*, striped.?1777. *Helix zonaria*, var.: PENNANT, *Brit. Zool.*, iv, 8vo,  
p. 138; 4to, p. 119, pl. lxxxv, f. 133a.1778. *Cochlea virgata*: DACOSTA, *Test. Brit.*, p. 79, pl. iv, f. 7.1791. *Helix zonaria* [pars]: GMELIN, in *Linn. Syst. Nat.*,  
ed. 13, i, pt. 6, p. 3632.<sup>1</sup> The first five genera here following have for some years been classed as sub-genera of *Helicella*, a name to which they were not entitled, as pointed out by GUDE & WOODWARD, *See Proc. Malac. Soc. Lond.*, xiv, 1921, p. 175. In the same paper (pp. 181-184) details were set forth concerning those sub-genera in the light of contemporary knowledge; the present arrangement is consequent upon later study of the group.

1799. *Helix virgata* : PULTENEY, *Cat. Dorset.*, p. 47.
1800. *Helix zonaria*, Linn. : DONOVAN, *Brit. Shells*, ii, pl. lxxv.
- ?1801, } *Helix fasciolata* : POIRET, *Coq. Aisne*, p. 79.  
Apr. }
- 1801, } *Helix subalbida* : POIRET, *o. c.*, p. 83. [*Teste Férussac*,  
Apr. } Essai, 1807.]
- 1801, } *Helix variabilis* : DRAPARNAUD, *Tabl. Moll. France*,  
July. } p. 73.
1803. *Helix virgata*, Pult. : MONTAGU, *Test. Brit.*, p. 415,  
pl. xxiv, f. 1.
1805. *Helix variabilis* : DRAPARNAUD, *Hist. Moll. France*,  
p. 84, pl. v, f. 11-13.
1807. *Helix virgata* : MATON & RACKETT, *Trans. Linn. Soc.*,  
viii, p. 195.
1813. *Helix virgata* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2,  
p. 53, pl. xx, f. 7.
1817. *Helix Pisana*, Müll. [pars] : DILLWYN, *Cat. Shells*, ii,  
p. 911.
- ?1818. *Helix elegans* : BROWN, *Mem. Wernerian Nat. Hist. Soc.*,  
ii, p. 528, pl. xxiv, f. 9. [A scalariform mon-  
strosity, by some referred to *Xerophila itala*.]
- ?1819, } *Helix disjuncta* : TURTON, *Conch. Dict.*, p. 61, f. 63.  
Feb. } [*N. nov.* for BROWN's *H. elegans* (*supra*).]
1819. *Theba virgata*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs),  
p. 93.
1821. *Helix (Helicella) variabilis*, Draparn. [pars] : FÉRUSSAC,  
*Tabl. syst. Limaçons*, Jan. ed., p. 48 (June  
ed., p. 44).
1823. *Helix pisana* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.
1826. *Helicella variabilis* (Drap.) : RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 71.
- ?1827. *Caracolla elegans*, Brown : BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xl, f. 28.
1827. *Helix virgata*, Mont. : BROWN, *o. c.*, pl. xl, f. 41-45  
[f. 41 as *rufescens*].
1828. *Helix variabilis*, Drap. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, iii, p. 28, pl. vi, f. 10 & 13.
- 1830, } *Helix monilifera*, m. : MENKE, *Synop. Moll.*, ed. 2,  
Apr. } p. 22.
1830. *Helix virgata*, Mont. : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 334.
1831. *Helix virgata*, Montagu : TURTON, *Manual*, p. 40, f. 31.
1831. *Theba virgata* : LEACH, in Turton, *Manual*, p. 41, in  
synon.
1831. *Helix lauta*, Prod. MS. : LOWE, *Trans. Camb. Phil. Soc.*,  
iv, pt. 1, p. 53, pl. vi, f. 9.
1837. *Helix (Theba) maritima*, Drp. [pars] : }  
1837. *Helix (Theba) monilifera*, Menke : } BECK, *Index*  
1837. *Helix (Theba) maculosa*, Ziegl. : } *Moll.*, p. 12.



1837. *Helix (Theba) obsoleta*, Zigl. [sic]: }  
 1837. *Helix (Theba) virgata*, Mtg.: } BECK, *o. e.*, p. 14.
- 1837, }  
 Dec. } *Xerophila variabilis*, Drap.: HELD, *Isis*, xxx, hft. 12,  
 col. 913.
1838. *Helix (Cernuella) variabilis*, m. (Dr.): SCHLÜTER, *Kurz-  
 syst. Verzeichn.*, p. 6.
- Ante }  
 1839. } *Helix hirizans*, n.: COSTA, *Fauna Reg. Napoli*, *Gast.*  
*Polmon.*, *Helix*, p. 30.
- 1840, }  
 Apr. } *Helix (Heliomanes) virgata*, Montagu: GRAY, *Turton's*  
*Manual*, new ed., p. 160, pl. iv, f. 31.
- Post }  
 Sept. } *Helix (Heliomanes) virgata*, Montagu: BROWN, *Illus.*  
 1840. } *Conch. Brit.*, ed. 2, p. 49, pl. xvii, f. 41-45.
1842. *Euparypha variabilis*: HARTMANN, *Erd- & Süßw.-  
 Gasterop.*, p. 144.
1845. *Helix (Heliomanes) virgata*, Montagu: BROWN, *Illust. L. &  
 F.-W. Conch. Brit.*, p. 73, pl. viii, f. 1-5.
1849. *Helix arenosa*, Ziegl. in Rossm.: DUPUY, *Hist. Nat.*  
*Moll. France*, p. 291, pl. xiii, f. 9. [Non  
 Ziegler.]
1850. *Helix (Xerophila) variabilis*, Drp.: ALBERS, *Heliceen*, p. 75.
1852. *Helix virgata*, DaCosta: FORBES & HANLEY, *Brit. Moll.*,  
 iv, p. 57, pl. cxvii, f. 10.
1852. *Teba virgata*, Mont.: LEACH, *Moll. Brit. Synop.*, p. 68.
1856. *Helix (Heliomane) variabilis*, Drap.: MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 262, pl. xix, f. 21-26.
1857. *Helix (Heliomanes) virgata*, DaCosta: GRAY, *Turton's*  
*Manual*, new ed., p. 124, pl. iv, f. 31.
1859. *Helix lineata*, Olivi, var. 2: L'HÔPITAL, *Bull. Soc. Linn.*  
*Normandie*, iv, p. 104. [Non Olivi ?]
1862. *Helix virgata*, DaCosta: JEFFREYS, *Brit. Conch.*, i,  
 p. 210; v, pl. xiii, f. 2.
1863. *Helix virgata*, DaCosta: REEVE, *L. & F.-W. Brit. Is.*,  
 p. 69, figs.
1865. *Jacosta variabilis*, Drp.: MÖRCH, *Journ. de Conchyl.*,  
 xiii, p. 386.
1878. *Theba virgata*, Costa: JOUSSEAUME, *Bull. Soc. Zool.*  
*France*, iii, p. 211, pl. v, f. 7 & 8.
1882. *Helix lineata*, Locard: LOCARD, *Prod. Malac. France*,  
 p. 117. [Non Olivi.]
1889. *Helix (Xerophila) virgata*, DaCosta: WESTERLUND,  
*Fauna Paläaret. Region*, ii, p. 165.
1892. *Xerophila (Xerolauta) virgata*: MONTEROSATO, *Atti*  
*Accad. Sci. Palermo*, Ser. III, vol. ii, p. 22.
1892. *Xerophila (Xerolauta) variabilis*: MONTEROSATO, *l. e.*
1895. *Helicella (Heliomanes) variabilis*, Dr.: } PILSBRY, *Man.*  
 1895. } *Helicella (Heliomanes) virgata*, DaC.: } *Conch.*, Ser. II,  
 vol. ix, p. 249.
1902. *Heliomanes (Helicopsis) variabilis*, Drp.: WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 100.



1904. *Xerophila (Helicopsis) variabilis*, Drap.: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 204.
1905. *Helix Palavasensis*, Germain: GERMAIN, *Bull. Soc. Sci. Elbeuf*, xxiii, p. 53. [*N. nov.* for *H. lineata*, Locard, *non* Olivi.]
- 1921, } *Helicopsis (Cernuella) virgata*, DaCosta: GUDE & WOOD-  
Oct. } ward, *Proc. Malac. Soc.*, xiv, p. 182.
- 1921, } *Jacosta (Cernuella) virgata*, DaCosta: GUDE & WOOD-  
Dec. } ward, *Ann. & Mag. Nat. Hist.*, Ser. IX,  
vol. viii, p. 625.
1921. *Xerophila (Helicomanes) virgata* (DaCosta): TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 143.
- [*Helix lineata*, Olivi (*Zool. Adriat.*, 1792, p. 177) and *H. maritima*, Draparnaud (*Hist. Moll. France*, 1805, p. 85, pl. v, f. 9 & 10), have been largely cited as varieties of this species, but there are grave doubts as to their identity and consequently they are here omitted.
- GERMAIN (*Moll. France*, ii, p. 97) gives as synonyms:—*Helix luteata*, Locard (*non* Parr.); *H. astata*, Bourg.; *H. plenaria*, Locard; *H. arenivaga*, Mab.; *H. leonis*, Loc.; *H. privatiformis*, Hagenm.; *H. lentipes*, Loc.; and *H. petrophila*, Loc. Innumerable additional names have been given by continental writers to more or less inconstant varieties of this species that are here disregarded.]
- First recorded as British in 1685, by M. Lister (*Hist. Conch.*, i, pl. lix, f. 56).
- British Distribution in Time: Pleistocene to Recent.

## Genus: 2. XEROPHILA, Held.

Etym.:—Gr. ξερός + φίλος, a lover of dry places.

Type:—*Helix itala*, Linné (selected under the synonym of *H. ericetorum*, Müller, by Von Martens, in Albers, *Heliceen*, 1860).

(*Helix, Helicella*, vett. auctt.)

- 1821, } *Helicella* [pars]: FÉRUSAC, *Tabl. syst. Limaçons*, Jan.  
Jan. } ed., p. 41 (June ed., p. 37).
1837. *Xerophila*: HELD, *Isis*, xxx, hft. 12, col. 913.
1876. *Planatella*: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 143.
1879. *Pseudoxerophila*: WESTERLUND, in Westerlund & Blanc, *Aperçu Faune Malac. Grèce*, p. 55.
1892. *Xerolenta*: }  
*Xerolaxa*: } MONTEROSATO, *Atti Accad. Sci. Palermo*,  
*Xerofriga*: } Ser. III, vol. ii [Classe Sci., no. 2],  
*Xerogyra*: } p. 24.  
*Xerocincta*: }

1. *Xerophila itala* (Linné).

Etym. :—Lat. *Italus*, Italian.

1758. *Helix itala* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 772, no. 598.  
 1767. *Helix itala* : LINNÆUS, *o. c.*, ed. 12, p. 1245, no. 683.  
 1774. *Helix ericetorum* : MÜLLER, *Verm. Hist.*, ii, p. 33.  
 1777. *Helix albella*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, Svo, p. 132; 4to, p. 115, pl. lxxxv, f. 122.  
 1778. *Helix erica* : DACOSTA, *Test. Brit.*, p. 53, pl. iv, f. 8.  
 1791. *Helix ericetorum* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3632, no. 65.  
 1791. *Helix itala* : GMELIN, *t. c.*, p. 3636, no. 81.  
 1798. *Angaria lineata* : BOLTEN, *Mus. Bolt.*, ii, p. 71, no. 916.  
 1799. *Helix ericetorum* : PULTENEY, *Cat. Dorset.*, p. 47.  
 1801. *Helix ericetorum*, vars.  $\beta$  &  $\gamma$ , Müll. : DRAPARNAUD, *Tabl. Moll. France*, p. 92.  
 1803. *Helix ericetorum*, Gmel. : MONTAGU, *Test. Brit.*, p. 437.  
 1805. *Helix ericetorum*, vars.  $\beta$  &  $\gamma$ , Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 107, pl. vi, f. 16 & 17 [by error f. 12].  
 1807. *Helix ericetorum* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 194.  
 1813. *Helix ericetorum* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xx, f. 8.  
 1815. *Vortex ericetorum* : OKEN, *Lehrb. Naturg.*, iii, abth. i, p. 314.  
 1817. *Helix ericetorum*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 910.  
 1817. *Helix itala*, Linn. : DILLWYN, *t. c.*, p. 929.  
 ?1818. *Helix elegans* : BROWN, *Mem. Wernerian Soc. Nat. Hist.*, ii, p. 528, pl. xxiv, f. 9. [A scalariform monstrosity, by some identified with *Cernuella virgata*.]  
 ?1819, { *Helix disjuncta* : TURTON, *Conch. Dict.*, p. 61, f. 63.  
 Feb. { [Nom. nov. for the *H. elegans* of Brown, 1818.]  
 1819. *Zonites ericetorum*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 101.  
 1821. *Helix (Helicella) ericetorum*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44); *Hist.*, pl. lxxxv, f. 1-4.  
 1821. *Helix neglecta*, Drap. : HARTMANN, *Neue Alpina*, i, p. 226.  
 1821. *Helix cespitum*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 39, pl. ii, f. 24 & 25.  
 1823. *Helix ericetorum* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.  
 1827. *Helix ericetorum*, Mont. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 21 [22], 23 & 24.  
 ?1827. *Carocolla elegans*, Brown : BROWN, *o. c.*, pl. xl, f. 28. [See *supra*, 1818.]  
 1830. *Helix ericetorum*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 339.

1831. *Helix ericetorum*, Montagu: TURTON, *Manual*, p. 54, f. 37.
1831. *Zonites ericetorum*: LEACH, in Turton, *Manual*, p. 54, in synon.
1833. *Oxychilus ericetorum*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 100.
1837. *Helix (Theba) ericetorum*, O. Müll.: BECK, *Index Moll.*, p. 13.
1837. *Xerophila ericetorum*, Müll.: HELD, *Isis*, xxx, hft. 12, col. 913.
1838. *Helix arenosa*, Ziegl.: ROSSMÄSSLER, *Icon.*, hft. 7 (Bd. ii), p. 34, f. 519. (First mentioned in Bd. i, 1835, p. 68.)
1840. } *Helix (Heliomanes) ericetorum*, Müller: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 163, pl. iv, f. 37.
- Post } *Helix (Heliomanes) ericetorum* [sic], Müller: BROWN,  
Sept. } *Illust. Conch. Brit.*, ed. 2, p. 50, pl. xvii,  
1840. } f. 21-23, 28 & 34.
1845. *Helix (Heliomanes) ericetorum* [sic], Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 76, pl. viii, f. 16-19.
1846. *Helix erycetorum* [sic], Müll.: PORRO, *Coll. Mus. Mediolan.*, Moll., p. 4.
1847. *Helix (Teba) ericetorum*, Müll.: BECK, *Amtl. Ber. 24. Versamml. Deutsch. Naturf.*, p. 122.
1847. *Theba (Oxychilus) ericetorum*: GRAY, *Proc. Zool. Soc.*, xv, p. 173.
1848. *Helix küsteri*, mihi: HELD, *Jahresb. K. Kreis-Landwirth.- & Gewerbs-Schule München*, 1848-9, p. 22.
1850. *Helix (Xerophila) ericetorum*, Müll.: ALBERS, *Heliceen*, p. 75.
1852. *Helix ericetorum*, Müller: FORBES & HANLEY, *Brit. Moll.* iv, p. 61, pl. cxvii, f. 4.
1852. *Zonites ericetorum*, Müll.: LEACH, *Moll. Brit. Synop.*, p. 73.
1856. *Helix (Helicella) ericetorum*, Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 252, pl. xviii, f. 30-33; xix, f. 1-3.
1857. *Helix (Heliomanes) ericetorum*, Müller: GRAY, Turton's *Manual*, new ed., p. 127, pl. iv, f. 37.
1862. *Helix ericetorum*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 216; v, pl. xiii, f. 4.
1863. *Helix ericetorum*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 71, figs.
1864. *Jacosta ericetorum*, Müll.: MÖRCH, *Synop. Moll. Daniæ*, p. 20.
1876. *Xerophila (Planatella) ericetorum*, Müller: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 143, f. 82.

1888. *Helix ericeticola*, Nob. : CHATENIER, *Cat. Moll. Drôme*, p. 16.
1892. *Helix (Xerophila) lampra*, n. sp. : WESTERLUND, *Verhandl. Zool.-bot. Gesell. Wien*, xlii, p. 33.
1892. *Xerophila (Xerolaxa) ericetorum* : MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii, p. 24.
1895. *Helicella* (s.s.) *ericetorum*, Müll. : PILSBRY, *Man. Conch.*, Ser. II, vol. ix, p. 252.
1902. *Heliomanes (Xerophila) ericetorum*, Müll. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 100.
- 1921, } *Helicopsis (Xerophila) itala*, Linn. : GUDE & WOOD-  
Oct. } WARD, *Proc. Malac. Soc.*, xiv, p. 182.
- 1921, } *Jacosta (Xerophila) itala*, Linn. : GUDE & WOODWARD,  
Dec. } *Ann. & Mag. Nat. Hist.*, Ser. IX, vol. viii,  
p. 625.
- 1921, } *Xerophila itala* (Linné) : TAYLOR, *Monog. Moll. Brit.*  
Dec. } *Is.* [iv], p. 114, pl. xi.

[GERMAIN (*Moll. France*, ii, p. 105) cites as synonyms :—  
*Helix virgultorum*, Bourg.; *H. morbihana*, Bourg.;  
*H. Tardyi*, Bourg.; *H. subulivaga*, Mab.; *H. novio-*  
*dunensis*, Locard; and *H. avernorum*, Locard.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 12).

British Distribution in Time : Pleistocene to Recent.

## 2. *Xerophila neglecta* (Draparnaud).

Etym. :—Lat. *neglecta*, overlooked.

1805. *Helix neglecta* : DRAPARNAUD, *Hist. Moll. France*, p. 108, pl. vi, f. [12 &] 13.
1821. *Helix (Helicella) neglecta*, Draparn. : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44).
1821. *Helix ericetorum*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 38, pl. ii, f. 23.
1837. *Helix (Theba) neglecta*, Drp. : BECK, *Index Moll.*, p. 13.
1837. *Xerophila neglecta* Drap. : HELD, *Isis*, xxx, hft. 12, col. 913.
1850. *Helix (Xerophila) neglecta*, Drp. : ALBERS, *Heliceen*, p. 75.
1851. *Helix (Xerophila) Nilssoniana*, Bk. : MALM, *Götheb. K. Vet. & Vitt. Samhälles Handl.*, N.F. ii, p. 119. [Non Beck.]
1855. *Theba neglecta*, Drap. : H. & A. ADAMS, *Genera Moll.*, ii, p. 216.
1856. *Helix (Helicella) neglecta*, Drap. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 250, pl. xviii, f. 27-29.

1865. *Jacosta neglecta*, Drp.: MÖRCH, *Journ. de Conchyl.*, xiii, p. 386.
- ?1878. *Theba ericctella*, nobis: JOUSSEAUME, *Bull. Soc. Zool. France*, iii, p. 229, pl. v, f. 11 & 12.
1892. *Xerophila* (*Xerocincta*) *neglecta*: MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii [Classe Sci., no. 2], p. 24<sup>o</sup>.
1895. *Helicella* (s.s.) *neglecta*, Drap.: PILSBRY, *Man. Conch.*, Ser. II, vol. ix, p. 252.
1904. *Xerophila* (*Helicopsis*) *neglecta*, Drap.: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 204.
- 1921, } *Helicopsis* (*Xerophila*) *neglecta*, Drap.: GUDE & WOOD-  
Oct. } WARD, *Proc. Malac. Soc.*, xiv, p. 188.
- 1921, } *Jacosta* (*Xerophila*) *neglecta*, Drap.: GUDE & WOOD-  
Dec. } WARD, *Ann. & Mag. Nat. Hist.*, Ser IX, vol. viii, p. 625.
- 1921, } *Xerophila* (*Heliomanes*) *neglecta*, Draparnaud: TAYLOR,  
Dec. } *Monog. Moll. Brit. Is.* [iv], p. 137, pl. xi.

[GERMAIN (*Moll. France*, ii, p. 106) gives as synonyms:—*Helix subneglecta*, Bourg.; *H. trepidula*, Serv.; *H. trepidulina*, Loc.; *H. acosmeta*, Bourg.; and *H. ericetorella*, Servain.

PFEIFFER (*Mon. Helic. Vivent.*, i, 1848, p. 164) cites in synonymy:—" *Helix clivorum*, Hartm," and this has been quoted on his authority.]

First recorded as British in 1917, by A. S. Kennard & B. B. Woodward (*Proc. Malac. Soc. Lond.*, xii, p. 133).

British Distribution in Time: Recent.

### Genus: 3. HELICOPSIS, Fitzinger.

Etym.:—Gr. ἑλιξ + ὄψις, like a helix.

Type:—*Helix striata*, Müller.

(*Helix*, *Helicella*, vett. auctt.)

- 1821, } *Helicella* [pars]: FÉRUSAC, *Tabl. syst. Limaçons*, Jan.  
Jan. } ed., p. 41 (June ed., p. 37).
1833. *Helicopsis*: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 101.
1837. *Xerophila* [pars]: HELD, *Isis*, xxx, hft. 12, col. 913.
1876. *Striatella* [pars]: WESTERLUND, *Fauna Europ. Moll. Extramar.*, p. 105. [Non Brot, 1874 (Tiaridæ).]
1892. *Xeroclausa*: }  
*Xerolenta* [pars]: } MONTEROSATO, *Atti Accad. Sci.*  
*Xerotringa* [pars]: } *Palermo*, Ser. III, vol. ii [Classe  
Sci., no. 2], p. 22.

1. *Helicopsis striata* (Müller).

Etym. :—Lat. *striatus*, grooved.

1774. *Helix striata* : MÜLLER, *Verm. Hist.*, ii, p. 38.  
 1791. *Helix striata*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3632.  
 1805. *Helix striata* [pars] : DRAPARNAUD, *Hist. Moll. France*, p. 106, pl. vi, f. 18–20.  
 1817. *Helix striata*, Müller : DILLWYN, *Cat. Shells*, ii, p. 928.  
 1821. *Helix (Helicella) striata*, Drap. [pars] : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44).  
 1828. *Helix costulata*, Ziegler [MS.] : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 32, pl. vi, f. 21 & 22.  
 1833. *Helicopsis striata*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 101.  
 1860. *Helix (Xerophila) striata*, Müll. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 111.  
 1878. *Theba striata*, Müll. : JOUSSEAUME, *Bull. Soc. Zool. France*, iii, p. 223, pl. v, f. 13 & 18.  
 1884. *Xerophila (Striatinella) striata*, Müller : CLESSIN, *Deutsch. Excur. Moll. Fauna*, ed. 2, p. 196, f. 114.  
 1888. *Helix (Candidula) striata*, Müller : TRYON, *Manual*, Ser. II, vol. iv, p. 7, pl. i, f. 24 & 25.  
 1892. *Xerophila (Xeroalbina) striata* : MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii [Classe Sci., no. 2], p. 23.  
 1895. *Helicella (Candidula) striata*, Müll. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 255.  
 1921, } *Helicopsis* (s.s.) *striata*, Müller : GUDE & WOODWARD,  
 Oct. } *Proc. Malac. Soc.*, xiv, p. 183.  
 1921, } *Jacosta (Helicopsis) striata*, Müller : GUDE & WOODWARD,  
 Dec. } *Ann. & Mag. Nat. Hist.*, Ser. IX, vol. viii,  
 p. 625.

[BECK (*Index Moll.*, p. 11) gives a "*H. narbonensis*, Requien," as a synonym of *Theba costulata*, Zigl. [*sic*], and this reference has been quoted on his authority.

GERMAIN (*Moll. France*, ii, p. 110) gives as synonyms :—*Helix deana*, Tassy; and *H. pleurestha*, Tassy.]

First recorded as British in 1917, by A. S. Kennard & B. B. Woodward (*Proc. Gcol. Assoc.*, xxviii, table facing p. 190).

British Distribution in Time : Pleistocene.

Genus : 4. *CANDIDULA*, Kobelt.

Etym. :—Lat. dimin. of *candidus*, white.

Type :—*Helix candidula*, Studer.

(*Helix, Helicella*, vett. auctt.)

- 1821, } *Helicella* [pars] : FÉRUSAC, *Tabl. syst. Limaçons*, Jan.  
 Jan. } ed., p. 41 (June ed., p. 37).



1837. *Xerophila* [pars]: HELD, *Isis*, xxx, hft. 12, col. 913.  
 1871. *Candidula*: KOBELT, *Cat. Europ. Binnenconch.*, p. 22.  
 1876. *Striatinella*: CLESSIN, *Deutsch. Excur. Moll. Fauna*,  
 p. 149.  
 1876. *Striatella* [pars]: WESTERLUND, *Fauna Europ. Moll.*  
*Extramur.*, p. 105. [Non Brot, 1874  
 (Tiaridæ).]  
 1892. *Xerolena* [pars]: } MONTEROSATO, *Atti Accad. Sci.*  
*Xerotringa* [pars]: } *Palermo*, Ser. III, vol. ii [Classe  
*Xerovaga*: } *Sci.*, no. 2], p. 22.  
*Xeroalbina*: }  
*Xeromicra*: } MONTEROSATO, *t. c.*, p. 23.  
*Xerotricha*: }

1. †*Candidula crayfordensis*, Kennard & Woodward.

Etym. :—Named after the type locality of Crayford, Kent.

1913. *Helicella* (*Candidula*) *candidula*, Studer: KENDALL,  
*Journ. of Conch.*, xiv, p. 88. [Non Studer.]  
 1914. *Helicella* (*Candidula*) *crayfordensis* (A. S. Kennard MS.):  
 JACKSON, *Journ. of Conch.*, xiv, p. 199.  
 [Nom. nud.]  
 1915. *Helicella* (*Candidula*) *crayfordensis*, n. sp.: KENNARD &  
 WOODWARD, *Proc. Malac. Soc.*, xi, p. 270,  
 figs.

First recorded as British in 1913, by C. E. Y. Kendall,  
 as *Helicella candidula*. (See ref. above.)

British Distribution in Time: Pleistocene.

2. *Candidula caperata* (Montagu).

Etym. :—Lat. *caperatus*, wrinkled.

- ?1801, } *Helix fasciolata*: POIRET, *Coq. Aisne*, p. 79.  
 Apr. }  
 ?1801, } *Helix intersecta*: POIRET, *o. c.*, p. 81.  
 Apr. }  
 [This name is accepted by French authors for this species,  
 but its identity appears doubtful.]  
 1801, } *Helix striata*: DRAPARNAUD, *Tabl. Moll. France*, p. 91.  
 July. } [Non Müller.]  
 1803. *Helix caperata*: MONTAGU, *Test. Brit.*, p. 430, pl. xi,  
 f. 11.  
 1805. *Helix striata* [pars]: DRAPARNAUD, *Hist. Moll. France*,  
 p. 106.  
 1807. *Helix caperata*, Montagu: MATON & RACKETT, *Trans.*  
*Linn. Soc.*, viii, p. 196.  
 1813. *Helix caperata* [pars]: RACKETT, in Pulteney, *Cat.*  
*Dorset.*, ed. 2, p. 53.  
 1819. *Teba caperata*, Mont.: LEACH, *Moll. Brit. Synop.* (proofs),  
 p. 97.



1821. *Helix (Helicella) striata*, Drap. [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44).
1828. *Helix striata*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 31, pl. vi, f. 23.
1830. *Helix caperata*, Mont.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 335.
1831. *Helix caperata* [pars]: TURTON, *Manual*, p. 42.
1831. *Teba caperata*: LEACH, in Turton, *Manual*, p. 42, in synon.
1833. *Helicopsis striata*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 101.
1837. *Helix (Theba) intersecta*, Poiret: BECK, *Index Moll.*, p. 12.
1837. *Xerophila striata*, Drap.: HELD, *Isis*, xxx, hft. 12, col. 913.
1840. } *Helix (Heliomanes) caperata*, Montagu [pars]: GRAY,  
Apr. } Turton's *Manual*, new ed., p. 162.
- Post }  
Sept. } *Helix (Heliomanes) caperata*, Montagu [pars]: BROWN,  
1840. } *Illust. Conch. Brit.*, ed. 2, p. 49.
1845. *Helix (Heliomanes) caperata*, Montagu [pars]: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 74.
1850. *Helix (Xerophila) striata*, Drp.: ALBERS, *Heliceen*, p. 75.
1852. *Teba caperata*, Mont.: LEACH, *Moll. Brit. Synop.*, p. 70.
1852. *Helix caperata*, Montagu: FORBES & HANLEY, *Brit. Moll.*, iv, p. 59, pl. cxvii, f. 7.
1855. *Helix (Xerophila) caperata*, Mont.: PFEIFFER, *Malak. Blätt.*, ii, p. 130.
1856. *Helix (Zenobia) fasciolata*, Poir.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 239, pl. xviii, f. 7-10.
1856. *Helix (Zenobia) intersecta*, Poir.: MOQUIN-TANDON, *t. c.*, p. 241, pl. xviii, f. 11 & 12.
1857. *Helix (Heliomanes) fasciolata*, Poiret [pars]: GRAY, Turton's *Manual*, new ed., p. 122.
1860. *Helix (Xerophila) caperata*, Mont.: MARTENS, in Albers, *Heliceen*, ed. 2, p. 112.
1862. *Helix caperata*, Montagu: JEFFREYS, *Brit. Conch.*, i, p. 213; v, pl. xiii, f. 3.
1863. *Helix fasciolata*, Poiret: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 70, figs.
1865. *Jacosta fasciolata*, Poiret: MÖRCH, *Journ. de Conchyl.*, xiii, p. 386.
1878. *Theba intersecta*, Poiret: JOUSSEAUME, *Bull. Soc. Zool. France*, iii, p. 221, pl. v, f. 23 & 24.
1888. *Helix (Candidula) caperata*, Mtg.: TRYON, *Manual*, Ser. II, vol. iv, p. 14, pl. iii, f. 1, 3-5, 12 & 13.
1889. *Helix (Xerophila) intersecta*, Poir.: WESTERLUND, *Fauna Paläarct. Region*, ii, p. 256.

1893. *Xerophila (Xerovaga) caperata*, Mtg.: MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii [Classe Sci., no. 2], p. 22.
1895. *Helicella (Candidula) caperata*, Mont.: PILSBRY, *Manual*, Ser. II, vol. ix, p. 254.

[GERMAIN (*Moll. France*, ii, p. 115) gives as synonyms:—*Helix olisippensi*, Servain; *H. subintersecta*, Bourg.; *H. herbarum*, Servain; and *H. pictonum*, Bourg. Innumerable additional names have been given by continental writers to more or less inconstant varieties of this species that are here disregarded.]

First described as British in 1803, by G. Montagu, as *Helix caperata*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

### 3. *Candidula gigaxii* (Charpentier MS., Pfeiffer).

Etym. :—Dedicated to a M. Gigax.

1803. *Helix caperata* [pars]: MONTAGU, *Test. Brit.*, p. 432. [Placed in the Portland cabinet by Dr. Solander under the name *apex-niger*.]
1805. *Helix striata*, var.  $\alpha$ : DRAPARNAUD, *Hist. Moll. France*, p. 106, pl. vi, f. 19 & 20.
1813. *Helix caperata* [pars]: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xix, f. 20.
1817. *Helix crenulata*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 895. [Non Müller.]
1821. *Helix (Helicella) striata*, Drap. [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44); *Hist.*, pl. lxxxv, f. 9–13.
1823. *Helix crenulata*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1827. *Helix caperata*, Mont. [pars]: BROWN, *Illust. Conch. Brit.*, ed., 1, pl. xl, f. 32 [*i.e.* 37] & 39.
1831. *Helix caperata* [pars]: TURTON, *Manual*, p. 42, f. 32.
1840. } *Helix (Heliomanes) caperata* [pars]: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 162, pl. iv, f. 32.
- Post } *Helix (Heliomanes) caperata*, Montagu [pars]: BROWN,  
Sept. } *Illust. Conch. Brit.*, ed. 2, p. 49, pl. xvii,  
1840. } f. 37 & 39.
1845. *Helix (Heliomanes) caperata*: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 74, pl. viii, f. 6 & 7.
1848. *Helix caperata*, var.  $\beta$ ? *Gigaxii*, Charp. in sched.: PFEIFFER, *Mon. Helic. Viv.*, i, p. 167.
1850. } *Helix Gigaxii*, Charpentier [MS.]: PFEIFFER, *Zeitschr. f.*  
Aug. } *Malak.*, vii, p. 85.
1850. *Helix (Xerophila) Gigaxii*, Charp.: ALBERS, *Heliceen*, p. 75.

1854. *Helix derogata* : ROSSMÄSSLER, *Icon.*, iii, p. 27, pl. lxxvii, f. 833.
1855. *Theba (Irus) Gigaxii*, Charp. : H. & A. ADAMS, *Genera Moll.*, ii, p. 216.
1856. *Helix (Zenobia) fasciolata*,  $\delta$  : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 239.
1857. *Helix (Heliomanes) fasciolata* [pars] : GRAY, *Turton's Manual*, new ed., p. 122, pl. iv, f. 32.
1860. *Helix (Xerophila) intersecta*, Mich. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 111. [Non Michaud.]
1862. *Helix caperata*, var. 4, *Gigaxii* : JEFFREYS, *Brit. Conch.*, i, p. 214.
1877. *Helix Heripensis*, Jules Mabilie in Sched. 1872 : MABILLE, *Bull. Soc. Zool. France*, ii, p. 304.
1881. *Helix idanica*, nob. : LOCARD, *Mém. Acad. Sci. Lyon*, xxv, p. 51. [Teste Jackson, *Journ. of Conch.*, xiv, p. 197.]
1883. *Helix Lieuranensis*, Bourguignat [MS.] : LOCARD, *Contrib. Fauna Malac. France*, vi, p. 23. (*Ann. Soc. Linn. Lyon*, xxx, 1884, p. 19.) [Teste Jackson, *Journ. of Conch.*, xiv, p. 197.]
1883. *Helix scrupellina*, P. Fagot [MS.] : LOCARD, *t. c.*, p. 61. (*t. c.*, p. 57.) [Teste Jackson, *Journ. of Conch.*, xiv, p. 197.]
1888. *Helix (Candidula) Gigaxii*, Charp. : TRYON, *Manual*, Ser. II, vol. iv, p. 16, pl. iii, f. 25-27.
1892. *Helix (Xerovaga) gigaxii* : MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii [Classe Sci., no. 2], p. 22.
1895. *Helicella (Candidula) gigaxii*, Charp. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 255.
1895. *Helicella (Candidula) heripensis*, Mab. : PILSBRY, *Man. Conch.*, Ser. II, vol. ix, p. 255.
1912. *Helix (Candidula) heripensis*, Mabilie : GERMAIN, *Arch. Mus. Hist. Nat. Lyon*, xi, mém. 3, p. 95.

[GERMAIN (*Moll. France*, ii, p. 114) considers the following to be synonyms:—*Helix gesocribatensis*, Bourguignat; *H. lugdunica*, Mabilie; *H. philora*, Mabilie; *H. Thuillieri*, Mabilie; *H. Taillandieri*, Bourguignat; *H. nomephila*, Bourguignat; *H. ruida*, Bourguignat; *H. gavarnica*, Bourguignat; *H. pouzouensis*, Fagot; *H. Coutagnei*, Bourguignat; *H. acentromphala*, Bourguignat; *H. mauriana*, Bourguignat; *H. tolosana*, Bourguignat; *H. Groboni*, Bourguignat; *H. xeuëlica*, Servain; *H. saxæa*, Bourguignat; *H. Margieri*, Fagot; *H. Pauli*, Bourguignat; *H. valcourtiana*, Bourguignat; *H. crouzilianæ*, Fagot; *H. Veranyi*, Bourguignat; *H. solaciaca*,

Bourguignat; *H. loroglossicola*, Mabille; *H. dimiensi*, Rambur; *H. Lauraguaisiana*, Loc.; *H. Lemeslei*, Mab.; *H. scrupea*, Bourg.; and *H. scitulosa*, Fagot.]  
 First recorded as British in 1803, by G. Montagu, as a var. of *Helix caperata*. (See ref. above.)  
 British Distribution in Time: Pleistocene to Recent.

Genus: 5. **XEROCLIVIA**, Monterosato.

Etym.:—Gr. ξερός, dry, and Lat. *clivus*, a hill.

Type:—*Helix elegans*, Gmelin.

(*Helix*, *Helicella*, vett. auctt.)

1821, } *Helicella* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan.  
 Jan. } ed., p. 41 (June ed., p. 37).

1837. *Xerophila* [pars]: HELD, *Isis*, xxx, hft. 12, col. 913.

1837. *Turricula*: BECK, *Index Moll.*, p. 10. [Non Hermann, 1783 (Gastr.); nec Schumacher, 1817 (Pleurotomidæ).]

1838. *Trochula*: SCHLÜTER, *Kurz. syst. Verzicchn.*, p. 7. [Non *Trochulus*, Humphrey, 1797 (= *Monodonta*); nec “*Trochulus*, Christ.” Gray, 1847 (*Helix hispida*, Linn.); nec *Trochulus*, Westerlund, 1886 (*Petasina fulva*, Müller).]

1850 *Crenea*, subg. of *Helix* [pars]: ALBERS, *Heliceen*, p. 77. [Non Risso, 1826.]

1892. *Xeroclivia*: }  
*Xeroneza*: } MONTEROSATO, *Atti Accad. Palermo*, Ser.  
*Xerocochlea*: } III, vol. ii [Classe Sci., no. 2], p. 25.

1893. *Tropidocochlis* [pars]: LOCARD, *Échange*, ix, p. 97.

[\* \* *Trochoidea*, Brown, 1827, for “*T. terrestre*, Brown’s MS.” (*Illust. Conch. Brit.*, pl. xli, f. 80 & 81, with syn. “*Torchus terrestris*, Mont.”) has been quoted for this genus, under the belief that Brown was figuring the *Helix elegans* of Gmelin. His figures (possibly copied from Donovan) are, however, bad and like neither *elegans* nor *fulva*, to which latter he refers them in his second edition. Brown’s name is, therefore, inadmissible. (Cf. Gude & Woodward, *Ann. & Mag. Nat. Hist.*, Ser. IX, vol. viii, 1921, p. 625.)]

1. **Xeroclivia elegans** (Gmelin).

Etym.:—Lat. *elegans*, elegant.

1791. *Helix elegans*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, pt. 6, p. 3642.

- 1801, } *Helix elegans* : DRAPARNAUD, *Tabl. Moll. France*, p. 70.  
 July. }
1801. *Trochus terrestris*, Penn. : DONOVAN, *Brit. Shells*, iii,  
 pl. cxi. [*Non Pennant.*]
1805. *Helix elegans*, Gmel. : DRAPARNAUD, *Hist. Moll. France*,  
 p. 79, pl. v, f. 1 & 2.
1821. *Helix (Helicella) elegans*, Gmelin : FÉRUSAC, *Tabl. syst.*  
*Limaçons*, Jan. ed., p. 49 (June ed., p. 45).
1822. *Carocolla elegans* : LAMARCK, *Hist. Anim. s. Vert.*, vi,  
 pt. 2, p. 100.
1826. *Helicella elegans* : RISSO, *Hist. Nat. Europ. mérid.*, iv,  
 p. 69. [= *Helix scitula*, Cristof. & Jan, *fide*  
 Caziot.]
1826. *Helicella solarium* (N.) : RISSO, *t. c.*, p. 70. [*Fide*  
 Pfeiffer and Caziot.]
1837. *Turricula elegans*, Gm. : BECK, *Index Moll.*, p. 10.
1837. *Turricula depressa*, B. : BECK, *l. c.*
1838. *Helix (Trochula) elegans*, m. (Gm.) : SCHLÜTER, *Kurz.*  
*syst. Verzeichn.*, p. 7.
1847. *Theba (Trochoidea [sic] elegans* : GRAY, *Proc. Zool. Soc.*  
*London*, 1847, p. 173.
1850. *Helix (Crenoa) terrestris*, Chemn. : ALBERS, *Heliceen*, p. 78.
1855. *Iberus terrestris*, Chem. : H. & A. ADAMS, *Genera Moll.*,  
 ii, p. 209.
1856. *Helix (Heliomane) terrestris*, Penn. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 271, pl. xx, f. 6-12.
1860. *Helix (Turricula) elegans*, Gmel. : MARTENS, in Albers,  
*Heliceen*, ed. 2, p. 116.
1881. *Helix (Xerophila) elegans*, Gmel. : KOBELT, *Cat. Europ.*  
*Binnenconch.*, ed. 2, p. 51.
1888. *Helix (Turricula) terrestris*, Pennant : TRYON, *Manual*,  
 Ser. II, vol. iv, p. 29, pl. vi, f. 59-62.
1889. *Helix (Xerophila) terrestris*, Penn. : WESTERLUND, *Fauna*  
*Paläarct. Region*, ii, p. 354.
1895. *Helicella (Trochula) terrestris*, Penn. : PILSBRY, *Manual*,  
 Ser. II, vol. ix, p. 262.
1902. *Heliomanes (Turricula) terrestris*, Penn. : WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 101.
1904. *Trochula terrestris*, Penn. : KOBELT, in Rossmässler,  
*Icon.*, N.F. xi, p. 208.
- 1921, } *Helicopsis (Xeroclivia) elegans*, Gmelin : GUDE & WOOD-  
 Oct. } WARD, *Proc. Malac. Soc.*, xiv, p. 183.
- 1921, } *Jacosta (Xeroclivia) elegans*, Gmelin : GUDE & WOOD-  
 Dec. } WARD, *Ann. & Mag. Nat. Hist.*, Ser. IX,  
 vol. viii, p. 625.

[\*\* *Trochoidea*, Brown (*Illust. Conch. Brit.*, ed. 1, 1827,  
 pl. xli, f. 80 & 81) has been erroneously cited as  
 referring to this species. For discussion of the

question, See GUDE & WOODWARD, *Ann. & Mag. Nat. Hist.*, Ser. IX, vol. viii, p. 625.]

First recorded as British in 1891, by C. S. B. Cox (*Journ. of Conch.*, vi, p. 377). Earlier citations of the name were due to errors of identification.

British Distribution in Time : Recent.

Genus : 6. **COCHLICELLA**, Férussac.

Etym. :—Lat. dimin. from Gr. *κοχλίας*, a spiral shell.

Type :—*Helix conoidea*, Draparnaud (selected by Gray in 1847). (*Helix*, *Turbo*, *Bulimus*, vett. auctt.)

1821. *Cochlicella*, subg. 11 of *Helix* : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 56 (June ed., p. 52).
1826. *Cochlicella* [as a genus] : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 77.
1828. *Longæva*, Mhlf. [MS. ?] : MENKE, *Synop. Moll.*, p. 15, in synon.
1831. *Elismia* : LEACH, in Turton, *Manual*, p. 84, in synon. [misprinted *Elisma*. In the proofs of the *Moll. Brit. Synop.*, 1819, p. 109, it is given as "Prideaux MSS."].
1892. *Xeroacuta*, subg. of *Xerophila* : MONTEROSATO, *Atti Accad. Sci. Palermo*, Ser. III, vol. ii (Classe Sci., no. 2), p. 25.

1. **Cochlicella acuta** (Müller).<sup>1</sup>

Etym. :—Lat. *acutus*, pointed.

- ?1758. *Helix barbara* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 773.
- ?1767. *Helix barbara* : LINNÆUS, *o. c.*, ed. 12, p. 1249.
1774. *Helix acuta* : MÜLLER, *Verm. Hist.*, ii, p. 100.
1777. *Turbo fasciatus* : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 131; 4to, p. 114, pl. lxxxii, f. 119.
1778. *Turbo fasciatus* (PENN.) : DACOSTA, *Test. Brit.*, p. 90.
1789. *Bulimus acutus*, Nob. : BRUGUIÈRE, *Ency. Méthod.*, Vers i, p. 323.
1791. *Helix acuta*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3660.
1799. *Helix bifasciata* : PULTENEY, *Cat. Dorset.*, p. 49.
1801. *Bulimus acutus* : DRAPARNAUD, *Tabl. Moll. France*, p. 68.
1803. *Turbo fasciatus* : MONTAGU, *Test. Brit.*, p. 346.  
[According to Montagu (*Test. Brit.*, Suppt., p. 132), this species occurred in the Portland Collection under the name of *Turbo fasciaris*.]
1805. *Bulimus acutus* : DRAPARNAUD, *Hist. Moll. France*, p. 77, pl. iv, f. 29 & 30.

<sup>1</sup> For discussion as to the validity of this name, See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1920, p. 80.



1807. *Turritella turricula*: LINK, *Beschreib. Nat. Samml. Univ. Rostock*, iii, p. 138.
1807. *Helix bifasciata*, Pulteney: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 210.
- 1813? *Lymnaea fasciata*: FLEMING, *Edinb. Ency.*, vii, p. 78.
1813. *Helix bifasciata*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xviii, f. 8 & 10.
1817. *Helix acuta*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 956.
- ?1817. *Helix barbara*, Linn.: DILLWYN, *t. c.*, p. 960.
- 1817, } *Bulimulus acutus*, Linn. Gmel.: BLAINVILLE, *Dict. Sci. Mar.* f } *Nat.*, v, Suppt., p. 126.
1819. *Elismia fasciata*, Penn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 109.
1820. *Helix (Bulimus) acuta*, Müll.: FÉRUSSAC, *Journ. Physique* xc, p. 300.
1821. *Helix (Cochlicella) acuta*, Muller: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 56 (June ed., p. 52).
1821. *Bulimus variabilis*, var.  $\alpha$ : HARTMANN, *Neue Alpina*, i, p. 223: *ib.* Sturm, *Deutschl. Fauna*, vi, hft. 6, no. 11 [*i. e.* 12].
1822. *Bulimus articulatus*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 124. [*Teste* Moquin-Tandon.] It is followed on the next page by *B. acutus*.
1826. *Cochlicella meridionalis* (N): RISSO, *Hist. Europ. mérid.*, iv, p. 78.
1826. *Cochlicella turricula* (N): RISSO, *l. c.*
1827. *Bulimus acutus*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 18.
- 1828, } *Longarva turrita*, Mhlfld.: MENKE, *Synop. Moll.*, p. 15, Feb. f } in synonym.
1828. *Bulimus acutus*, Brug.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 35, pl. vii, f. 1.
1830. *Bulimus acutus*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 346.
1831. *Bulimus fasciatus*, Mont.: TURTON, *Manual*, p. 84, f. 67.
1831. *Bulimus ventricosus*, Drap.: TURTON, *o. c.*, p. 86, f. 69. [*Non* Draparnaud.]
1831. *Elisma* [sic] *fasciata*: LEACH, in Turton, *Manual*, p. 84, in synonym.
1832. *Bulimus elongatus*, nob.: CRISTOFORI & JAN, *Catalogus*, p. 4, *Bulimus* 17  $\frac{1}{2}$ .
1833. *Bulimus turritella* Andrz. [MS.]: KRYNICKI, *Bull. Soc. Imp. Nats. Moscou*, vi, p. 415.
1837. *Bulimus (Cochlicellus) articulatus*, Lm! : BECK, *Index Moll.*, p. 63.
1837. *Bulimus (Cochlicellus) Maroccanus*, B.: BECK, *l. c.*
1837. *Bulimus (Cochlicellus) acutus* (O. Müll.) Brug.: BECK, *l. c.*
1838. *Bulimus littoralis*, nobis: BRUMATI, *Cat. Conch. Monfalc.*, p. 34, f. 9.

- 1840, } *Bulimus (Elisma) acutus*, Müller: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 185, pl. vi, f. 67.  
Post }  
Sept. } *Bulimus acutus*, Bruguière: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 37, pl. xiv, f. 18.
1845. *Bulimus acutus*, Bruguière: BROWN, *Illust. L. & F.-W*  
*Conch. Brit.*, p. 35, pl. iv, f. 31 & 32.
1847. *Bulimulus (Elisma) acuta*: GRAY, *Proc. Zool. Soc. Lond.*,  
1847, p. 175.
1847. *Turbo Zappoides*, Ch.: } NARDO, *Sinon. Specie Chiereg-*  
1847. *Turbo Panactius*, Ch.: } *huni*, col. 83.
1847. *Helix miseria*, Ch.: NARDO, *o. c.*, col. 93.
1850. *Bulimus (Cochlicellus) acutus*, Müll.: ALBERS, *Heliceen*,  
p. 178.
- 1852, } *Elismia fasciata*, Penn.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 79.
- 1852, } *Bulimus acutus*, Müller: FORBES & HANLEY, *Brit. Moll.*,  
Mar. } iv, p. 86, pl. cxxviii, f. 5.
- 1852, } *Cochlicellus acutus*, Müll.: MÖRCH, *Cat. Conch. Yoldi*,  
Aug. } i, p. 24.
1855. *Cochlicella acuta*, Müll.: H. & A. ADAMS, *Genera Moll.*,  
ii, p. 163.
1856. *Helix (Cochlicella) acuta*, Müll.: MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 280, pl. xx, f. 27-32.
1857. *Bulimus (Elismia) acutus*, Müller: GRAY, Turton's  
*Manual*, new ed., p. 153, pl. vi, f. 67.
1862. *Bulimus acutus*, Müller: JEFFREYS, *Brit. Conch.*, i,  
p. 233; v, pl. xiv, f. 4.
1863. *Bulimus acutus*, Müller: REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 88, figs.
1889. *Helix (Xerophila) barbara*, Linn.: WESTERLUND, *Fauna*  
*Paläarct. Region*, ii, p. 366.
1892. *Xerophila (Xeroacuta) acuta*: MONTEROSATO, *Atti Accad.*  
*Sci. Palermo*, Ser. III, vol. ii (Classe Sci.,  
no. 2), p. 25.
1895. *Helicella (Cochlicella) barbara*, L.: PILSBRY, *Manual*,  
Ser. II, vol. ix, p. 263, pl. lxviii, f. 29.

First recorded as British in 1685, by M. Lister (*Hist.*  
*Conch.*, i, pl. xix, f. 14), from Alderney.

British Distribution in Time: Pleistocene to Recent.

Genus: 7. THEBA, Risso.

Etym.:—Doubtful.

Type:—*Helix cartusiana*, Müller. (Selected by Pilsbry, 1895.)  
(*Helix*, vett. auctt.)

1819. *Teba* [pars]: LEACH, *Moll. Brit. Synop.* (proofs), p. 91.

- 1821, } *Helicella* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed.,  
Jan. } p. 41 (June ed., p. 37).  
1821, } *Zenobia* [pars]: GRAY, *Lond. Med. Repos.*, xv, p. 239.  
Mar. } [Non Oken, 1815 (Lepidopt.).]  
1826. *Theba* (Leach MS.): RISSO, *Hist. Nat. Europ. mérid.*, iv,  
p. 73.  
1833. *Monacha* [pars]: FITZINGER, *Beitr. Landesk. Oesterr.*,  
iii, p. 95. [Non *Monachus*, Kaup, 1829  
(Aves).]  
1837. *Bradybæna*, subg. 11 of *Helix* [pars]: BECK, *Index Moll.*,  
p. 18. [Non *Bradybænus*, Dejean, 1829  
(Colcoptera).]  
1837. *Fruticicola* [pars]: HELD, *Isis*, xxx, hft. 12, col. 914.  
1838. *Cernuella* [pars]: SCHÜLTER, *Kurz. syst. Verzeichn.*, p. 6.  
1871. *Carthusiana*: KOBELT, *Cat. Europ. Binnencouch.*, p. 11.  
1889. *Latonia*: WESTERLUND, *Fauna Paläarct. Region*, ii,  
pp. 30 & 68. [Non Meyer, 1843 (Rept.).]  
1889. *Euomphalia*: WESTERLUND, *t. c.*, pp. 31 & 92.  
1904. *Westerlundia*: KOBELT, in Rossmässler's *Icon.*, N.F. xi,  
pp. 131 & 181 [*n. nov.* for *Latonia*].

### 1. *Theba cartusiana* (Müller).

Etym. :—So called because found at the Carthusian monastery of La Chartreuse.

1774. *Helix cartusiana*: MÜLLER, *Verm. Hist.*, ii, p. 15.  
1791. *Helix Carthusiana*, Müll.: GMELIN, in *Linn. Syst. Nat.*,  
ed. 13, i, pt. 6, p. 3664.  
?1792. *Helix arenaria*, nobis: OLIVI, *Zool. Adriat.*, p. 178.  
1801. *Helix Carthusianella*: DRAPARNAUD, *Tabl. Moll.*  
*France*, p. 86.  
1805. *Helix carthusianella*: DRAPARNAUD, *Hist. Moll. France*,  
p. 101, pl. xvi, f. 31, 32.  
?1805. *Helix glabella*: DRAPARNAUD, *o. c.*, p. 102, pl. vii, f. 6.  
1815. *Vortex cartusiana*: OKEN, *Lehrb. Naturg.*, iii, abth. I,  
p. 314.  
1817. *Helix Cartusiana*, Müll.: DILLWYN, *Cat. Shells*, ii, p. 943.  
1819. *Teba Carthusianella*, Drap.: LEACH, *Moll. Brit. Synop.*  
(proofs), p. 95.  
1820. *Helix gypsi* [err. pro *gibsi*]: FÉRUSSAC, *Journ. Phys.*,  
xc, p. 300 note.  
1821, { *Helix (Helicella) Carthusianella*, Drap.: FÉRUSSAC, *Tabl.*  
Jan. { *syst. Limaçons*, Jan. ed., p. 47 (June ed.,  
p. 43).  
1821, } *Helix (Zenobia) bimariginata*: GRAY, *Lond. Med. Repos.*,  
Mar. } xv, p. 239.  
1823. *Helix cartusiana*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 460.  
1826. *Theba carthusianella*, Drap.: RISSO, *Hist. Europ. mérid.*,  
iv, p. 75.

1826. *Theba cemenlea* (N) : RISSO, *t. c.*, p. 75. [*Teste Bourguignat and Caziot.*]
- ?1826. *Theba charpentieri* (N) : RISSO, *t. c.*, p. 76. [Cited as this species by Gray, 1857, but referred by Caziot to *T. rubella*, Risso.]
1827. *Helix Gibsii*, Leach MS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 49-51.
1828. *Helix carthusianella*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 25, pl. vi, f. 1.
1830. *Helix palida*,  $\alpha$  : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 336.
1831. *Helix Carthusianella*, Drap. : TURTON, *Manual*, p. 37, f. 27.
1831. *Teba Carthusianella* : LEACH, in Turton, *Manual*, p. 37, in synon.
1831. *Helix olivieri*, Fér. : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 25.
1833. *Monacha carthusianella*, mihi : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 95.
1833. *Helix claustralis*, Ziegler : FITZINGER, *l. c.*
1833. *Helix rufilabris* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 509.
1837. *Helix (Bradybena) carthusiana*, O. Müll. : BECK, *Index Moll.*, p. 19.
- 1837, } *Fruticicola carthusianella*, Drap. : HELD, *Isis*, xxx,  
Dec. } hft. 12. col. 914.
1838. *Helix (Cernuella) Carthusianella*, m. (Dr.) : SCHLÜTER, *Kurz. syst. Verzeichn.*, p. 6.
- 1840, } *Helix (Hygromanes) Carthusiana*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 146, pl. iii, f. 27.
- Post } *Helix (Helicella) carthusiana*, Müller : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 46, pl. xvii, f. 49-51.
1840. } *Helix (Helicella) carthusiana*, Müller : BROWN, *Illust. L.*  
1845. } & *F.-W. Conch. Brit.*, p. 63, pl. vii, f. 11-13.
1847. *Theba (Monacha) carthusiana* : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 173.
1850. *Helix (Fruticicola) carthusiana*, Müll. : ALBERS, *Heliccen*, p. 70.
1852. *Helix Carthusiana*, Müller : FORBES & HANLEY, *Brit. Moll.*, iv, p. 51, pl. cxvi, f. 5 & 6.
1852. *Teba Carthusianella*, Drap. : LEACH, *Moll. Brit. Synop.*, p. 69, pl. viii, f. 4-6.
- 1855, } *Hygromia Carthusiana*, Müll. : H. & A. ADAMS, *Genera*  
June. } *Moll.*, ii, p. 214.
- 1855, } *Helix (Hygromia) cartusiana*, Müll. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 127.
1856. *Helix (Zenobia) Carthusiana*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 207, pl. xvi, f. 20-26.

1857. *Helix (Hygromanes) carthusiana*, Müller : GRAY, Turton's *Manual*, new ed., p. 130, f. 35; pl. iii, f. 27.
1862. *Helix Cartusiana*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 192; v, pl. xi, f. 6.
1863. *Helix Carthusiana*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 67, figs.
1871. *Helix (Fruticicola : e. Carthusiana) carthusiana*, Müller : KOBELT, *Cat. Europ. Binnenconch.*, p. 11.
1887. *Helix (Carthusiana) carthusiana*, Müller : TRYON, *Manual*, Ser. II, vol. iii, p. 195, pl. xlv, f. 12 & 13.
1895. *Helicella (Theba) carthusiana*, Müll. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 266.
1902. *Hygromanes (Theba) carthusiana*, Müll. : WESTERLUND, *Rad Jugoslav. Akad.*, eli, p. 92.
1904. *Carthusiana carthusiana*, Müll. : KOBELT, in ROSSMÄSSLER, *Icon.*, N.F. xi, p. 209.
1912. *Helix (Theba) rufilabris*, Jeffreyss [*sic*] : GERMAIN, *Arch. Mus. Hist. Nat. Lyon*, xi, no. 3, p. 60, pl. v, f. 267-281 & 283-285.
1917. *Theba cartusiana* (Müller) : TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 96, pl. ix.

[GERMAIN (*Moll. France*, ii, p. 121) cites as synonyms :—*Helix stagnina*, Bourg.; *H. sarricensis*, Mart.; *H. ventiensis*, Bourg.; *H. innoxia*, Bourg.; *H. diurna*, Bourg.; *H. episema*, Bourg.; *H. Guerboisi*, Bourg.; and *H. avarica*, Loc.]

First recorded as British in 1820, by Férussac (*Journ. de Physique*, xe, p. 300), as *Helix carthusianella*, Drap.

British Distribution in Time : Holocene and Recent.

## 2. *Theba cantiana* (Montagu).

Etym. :—Lat. *Cantium*, the county of Kent.

1801. *Helix carthusiana*, Mull. : DRAPARNAUD, *Tabl. Moll. France*, p. 86. [Non Müller.]
1803. *Helix cantiana* : MONTAGU, *Test. Brit.*, p. 422; Suppt., pl. xxiii, f. 1.  
[According to Montagu (*Test. Brit.*, p. 422) this species occurred in the Portland Collection under the name of *Helix rufescens cantiana*.]
1803. *Helix pallida* : DONOVAN, *Brit. Shells*, v, pl. clvii, f. 2. [Quoted by Montagu (*Test. Brit.*, Suppt., p. 145).]
1805. *Helix carthusiana*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 102, pl. vi, f. 33.
1807. *Helix cantiana*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 197.

1813. *Helix cantiana*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xix, f. 21.
1817. *Helix cantiana*, Mont.: DILLWYN, *Cat. Shells*, ii, p. 894.
1819. *Teba Cantiana*, Mont.: LEACH, *Moll. Brit. Synop.* (proofs), p. 94.
1821. *Helix (Helicella) Carthusiana*, Draparn.: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 47 (June ed., p. 43); *Hist.*, pl. iv, f. 19 & xc, f. 11.
1821. *Helix (Helicella) cantiana*, Mont.: FÉRUSSAC, *l. c.*  
[Férussac afterwards, p. 73 (69), acknowledged this species to be a synonym of his *H. carthusiana*, Drap.]
1823. *Helix cantiana*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Theba carthusiana*, Drap.: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 74.
1827. *Helix cantiana*, Mont.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 15-17.
1828. *Helix carthusiana*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 26, pl. vi, f. 2 & 3.
1830. *Helix pallida*, Don.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 335.
1831. *Helix Carthusiana*, Drap.: TURTON, *Manual*, p. 36, f. 26.
1831. *Teba Cantiana*: LEACH, in Turton, *Manual*, p. 36, in synon.
1837. *Helix (Bradybæna) cantiana*, Mtg.: BECK, *Index Moll.*, p. 19.
1837. *Helix (Bradybæna) Brunonensis*, B.: BECK, *l. c.*
1837. *Fruticicola carthusiana*, Drap.: HELD, *Isis*, xxx, hft. 12, col. 914.
- 1840, } *Helix (Hygromanes) Cantiana*, Montagu: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 144, pl. iii, f. 26.
- Post }  
Sept. } *Helix (Helicella) cantiana*, Montagu: BROWN, *Illust.*  
1840. } *Conch. Brit.*, ed. 2, p. 46, pl. xvii, f. 15-17.
- 1845, } *Helix carthusianella*, Drap. [pars]: MORELET, *Descr.*  
July. } *Moll. Portugal*, p. 62.
1845. *Helix (Helicella) cantiana*, Montagu: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 63, pl. vii, f. 8-10.
1848. *Helix Galloprovincialis*: DUPUY, *Hist. Nat. Moll. France*, p. 204, pl. ix, f. 5 a-c.
1850. *Helix (Fruticicola) cantiana*, Montagu: ALBERS, *Heliceen.* p. 70.
1852. *Helix cantiana*, Montagu: FORBES & HANLEY, *Brit. Moll.*, iv, p. 50, pl. cxvi, f. 8 & 9.
1852. *Teba Cantiana*, Mont.: LEACH, *Moll. Brit. Synop.*, p. 68.
- 1855, } *Hygromia Cantiana*, Mont.: H. & A. ADAMS, *Genera*  
June. } *Moll.*, ii, p. 214.
- 1855, } *Helix (Hygromia) Cantiana*, Mont.: PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 127.



1855. *Helix carduelis*, Schulze : REIBISCH, *Allg. Deutsch. Naturh. Zeitung*, N.F. i, p. 415. [Schulze, 1770, was not a binominal writer and gave no name. See GUDE, *Proc. Malak. Soc.*, xi, p. 168, 1914.]
1856. *Helix (Zenobia) Cantiana*, Mont. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 201, pl. xvi, f. 9-13.
1857. *Helix (Hygromanes) cantiana*, Montagu : GRAY, *Turton's Manual*, new ed., p. 128, f. 34 & 35; pl. iii, f. 26.
1862. *Helix Cantiana*, Montagu : JEFFREYS, *Brit. Conch.*, i, p. 190; v, pl. xi, f. 5.
1863. *Helix Cantiana*, Montagu : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 66, figs.
1871. *Helix (Fruticicola : e. Carthusiana) Cantiana*, Mont. : KOBELT, *Cat. Europ. Binnenconch.*, p. 11.
1884. *Helix cantianiformis*, Bourg. in coll. : ANCEY, *Bull. Soc. Malac. France*, i, p. 158.
1887. *Helix (Carthusiana) Cantiana*, Montagu : TRYON, *Manual*, Ser. II, vol. iii, p. 192, pl. xlii, f. 67-69.
1895. *Helicella (Theba) cantiana*, Mont. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 266.
1904. *Carthusiana cantiana*, Mont. : KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 209.
1917. *Theba cantiana* (Montagu) : TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 78, pl. ix.

First recorded as British in 1678, by M. Lister (*Hist. Anim. Angl.*, p. 125).

British Distribution in Time : Roman Times and Recent.

Genus : 8. **ASHFORDIA**, Taylor.

Etym. :—Named in honour of the British malacologist C. Ashford.

Genotype :—*Helix granulata*, Turton MS., Alder.  
(*Helix, Theba, Hygromia, Fruticicola*, vett. auctt.)

1917. *Ashfordia* : TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 69.

1. **Ashfordia granulata** (Turton MS., Alder).

Etym. :—Based on the Lat. dimin. *granulum*, a little grain.

1799. *Helix hispida* [pars] : PULTENEY, *Cat. Dorset.*, p. 47.
1803. *Helix hispida*, Lin. : MONTAGU, *Test. Brit.*, p. 423; Suppt., pl. xxiii, f. 3.
1807. *Helix hispida* [pars] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 198.

1813. *Helix hispida* [pars]: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54.
1817. *Helix hispida*: DILLWYN, *Cat. Shells*, ii, p. 915.
1819. *Teba hispida*, Linn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 98.
- ?1823. *Helix hispida* [pars]: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1827. *Helix hispida*, Mont.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 8 & 13.
1830. } *Helix sericea*, Müll.: JEFFREYS, *Trans. Linn. Soc.*, xvi,  
June. } p. 333. [Non Müller.]
1830. *Helix granulata*, Turton MS.: ALDER, *Trans. Nat. Hist. Soc. Northumb.*, i, p. 39.
1831. *Helix sericea*, Drap.: TURTON, *Manual*, p. 38, f. 29. [Non Draparnaud.]
1831. *Teba hispida*: LEACH, in Turton, *Manual*, p. 38, in synon.
1833. *Helix globularis*: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 507.
1840. } *Helix (Hygromanes) granulata*, Alder: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 151, pl. iii, f. 29.
- Post }  
Sept. } *Helix (Helicella) granulata*, Alder: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 48, pl. xvii, f. 8 & 13.
1840. }  
1845. *Helix (Helicella) granulata*, Alder: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 69, pl. vii, f. 23 & 24.
1847. *Helix (Bradybena) granulata*, Alder: BECK, *Amtl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Fruticicola) sericea*, Drap.: ALBERS, *Heliceen*, p. 71.
1852. *Helix sericea*, Draparnaud: FORBES & HANLEY, *Brit. Moll.*, iv, p. 71, pl. cxviii, f. 5 & 6, cxxxii, f. 9.
1852. *Teba hispida*, Linn.: LEACH, *Moll. Brit. Synop.*, p. 71.
1857. *Helix (Hygromanes) granulata*, Alder: GRAY, Turton's *Manual*, new ed., p. 134, pl. iii, f. 29.
1860. *Helix psaturochata*: BOURGUIGNAT, *Malac. Bretagne*, p. 97, pl. i, f. 1-4.
1862. *Helix sericea*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 201; v, pl. xii, f. 4.
1863. *Helix sericea*, Draparnaud: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 77, figs.
1871. *Helix (Theba) granulata*, Alder: KOBELT, *Cat. Europ. Binnenconch.*, p. 10.
1879. *Helix (Hygromia) granulata*, Alder: PFEIFFER, *Nomencl. Helic. vivent.*, ed. Clessin, p. 123.
1881. *Helix (Fruticicola) granulata*, Alder: KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 22.
1892. *Helix (Trichia) granulata*, Alder: KOBELT, in Ross mässler, *Icon.*, N.F. v, p. 18.

1895. *Hygromia* (*Fruticicola*) *granulata*, Alder: PILSBRY, *Manual*, Ser. II, vol. ix, p. 273.  
 1904. *Fruticicola granulata*, Alder: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 181.  
 1917. *Ashfordia granulata* (Alder): TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 70, pl. ix.

First recorded as British in 1803, by G. Montagu, as *Helix hispida*. (See ref. above.)  
 British Distribution in Time: Pleistocene to Recent.

Genus: 9. **FRUTICICOLA**, Held.<sup>1</sup>

Etym.:—Lat. *frutex*, a shrub + *colo*, to inhabit.

Type:—*Helix cinctella*, Draparnaud. (Selected by Gray in 1847.)  
 (*Helix*, *Hygromia*, vett. auctt.)

1821. *Helicella* [pars]: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 41 (June ed., p. 37).  
 1826. *Hygromia*: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 66.  
 1837. *Bradybæna*, subg. 11 of *Helix* [pars]: BECK, *Index Moll.*, p. 18. [*Non Bradybænus*, Dejean, 1829 (Coleopt.).]  
 1837. *Fruticicola*: HELD, *Isis*, xxx, hft. 12, col. 914.

Sub-gen.: **Zenobiella**, Gude & Woodward.

Etym.:—Dimin. of *Zenobia*, a genus of helicoids.

Type:—*Helix subrufescens*, Miller.

1821. *Zenobia* [pars]: GRAY, *London Med. Repos.*, xv, p. 239. [*Non* Oken, 1815 (Lepidopt.).]  
 1921. *Zenobiella*: GUDE & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, p. 179.

Sub-gen.: **Fruticicola**, s.s.

1837. *Fruticicola*: HELD, as above.  
 1902. *Sciaphila*: WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 92. [*Non* Treitschke, 1829 (Lepidopt.).]

Sub-gen.: **Capillifera**, Honigmann.

Etym.:—Lat. *capillus*, hair + *fero*, to bear.

Type:—*Helix hispida*, Linné.

1840. *Trichia*: HARTMANN, *Gasteropoden*, p. 41. [*Non* Haller, 1768 (Mycetozoa); *nec* *Trichius*, Fabricius, 1775 (Coleopt.); *nec* *Trichia*, Hahn, 1841 (Crust.).]

<sup>1</sup> For discussion concerning this genus, See GUDE & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1921, p. 178.

1855. *Hispidella* [pars]: LOWE, *Proc. Zool. Soc. Lond.*, 1854, p. 178, with *H. hispida* as type. [*Non Hispidella*, Lowe, 1852 (*Ann. & Mag. Nat. Hist.*, Ser. II, vol. ix, p. 115) with sole species *armitagena*, which is a *Geomitra*.]
1906. *Capillifera*: HÖNIGMANN, *Abhandl. Mus. Magdeburg*, i, p. 190.

Sub-gen. : **Ponentina**, Hesse.

Etym. :—From the Portuguese *ponente*, or *poente*, west, used as a specific name by Morelet.

Type :—*Helix subvirescens*, Bellamy.

1921. *Ponentina*: HESSE, *Arch. f. Mollkunde*, 1921, p. 62.

1. **Fruticicola (Zenobiella) subrufescens** (Miller).

Etym. :—Lat. *sub* + *rufescens*, somewhat reddish.

1803. *Helix fusca*: MONTAGU, *Test. Brit.*, p. 424, pl. xiii, f. I. [*Non Poiret*.]
1807. *Helix fusca*, Montagu: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 209.
1817. *Helix fusca*, Montagu: DILLWYN, *Cat. Shells*, ii, p. 946.
1821. *Helix (Zenobia) corrugata*: GRAY, *Lond. Med. Repos.*, xv, p. 239. [*Nom. nud.*]
1822. *Helix subrufescens*, nobis: MILLER, *Ann. Phil.*, N.S. iii, p. 43.
1827. *Vitrina membranacea*, Brown's MS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 3, 4 & 5.
1827. *Helix fusca*, Mont.: BROWN, *o. c.*, pl. xl, f. 25 & 26.
1828. *Helix subrufescens* (Miller): FLEMING, *Hist. Brit. Anim.*, p. 259.
1830. *Helix fusca*, Mont.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 330.
1831. *Helix fusca*, Mont.: TURTON, *Manual*, p. 53, f. 36.
1837. *Helix revelata*, Fér.: BOUCHARD-CHANTEREAUX, *Mém. Soc. Agric. Boulogne*, Sér. II, tom. i, p. 180.
- 1840, } *Helix (Hygromanes) fusca*, Mont.: GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 147, pl. iv, f. 36.
- Post } *Helix (Helicella) fusca*, Montagu: BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 47, pl. xvii, f. 25, 26.
1840. } *Helix (Helicella) revelata*, Férussac [pars]: BROWN, *o. c.*,  
p. 48, pl. xvii, f. 3, 4 & 5.
1843. *Zonites fuscus*: MACGILLIVRAY, *Hist. Moll. Aberdeen.*, p. 93.
1845. *Helix (Helicella) fusca*, Montagu: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 66, pl. vii, f. 19 & 20.
1845. *Helix (Helicella) revelata*, Férussac [pars]: BROWN, *o. c.*, p. 69, pl. vii, f. 25–27.
1850. *Helix (Conulus) fusca*, Montagu: ALBERS, *Heliceen*, p. 73.

1852. *Helix fusca*, Montagu : FORBES & HANLEY, *Brit. Moll.*, iv, p. 77, pl. cxix, f. 4 & 5; cxxxii, f. 8.
1855. } *Zonites (Conulus) fusca*, Mont. : H. & A. ADAMS, *Genera*  
Jan. } *Moll.*, ii, p. 116.
1855. } *Helix (Hygromia) fusca*, Mont. : PFEIFFER, *Malak. Blätt.*,  
Nov. } ii, p. 127.
1856. *Helix (Zenobia) fusca*, Mont.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 212, pl. xvi, f. 33-36.
1857. *Helix (Hygromanes) fusca*, Mont. : GRAY, *Turton's Manual*, new ed., p. 132, f. 37, pl. iv, f. 36.
1860. *Helix (Fruticicola) fusca*, Mont. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 104.
1862. *Helix fusca*, Montagu : JEFFREYS, *Brit. Conch.*, i, p. 205; v, pl. xii, f. 6.
1863. *Helix fusca*, Montagu : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 79, figs.
1895. *Hygromia (Fruticicola) fusca*, Mont. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 273.
1916. *Hygromia (Zenobia) fusca* (Montagu) : TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 47, pl. v.
1921. *Monacha fusca*, Mont. : HESSE, *Arch. f. Mollkund.*, 1921, p. 66.
1921. *Fruticicola (Zenobiella) subrufescens* (Miller) : GUDE & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, p. 179.

First recorded as British in 1803, by G. Montagu, as *Helix fusca*. (See ref. above.)

British Distribution in Time : Recent.

## 2. *Fruticicola* (s.s.) *odeca* (Locard).

Etym. :—Unknown.

1805. *Helix limbata* : DRAPARNAUD, *Hist. Moll. France*, p. 100, pl. vi, f. 29. [*Non* DaCosta, 1778.]
1821. *Helix (Helicella) limbata*, Draparn. : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 47 (June ed., p. 43).
1837. *Helix (Bradybæna) limbata*, Drp. : BECK, *Index Moll.*, p. 18.
1837. *Fruticicola limbata*, Drap. : HELD, *Isis*, xxx, hft. 12, col. 914.
1840. } *Helix (Hygromanes) limbata*, Drap. : GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 143, pl. xi, f. 132.
- Post }  
Sept. } *Helix (Helicella) limbata*, Draparnaud : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 46, pl. xviii, f. 29 & 30.
1840. }  
1845. } *Helix (Helicella) limbata*, Draparnaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 65, pl. vii, f. 16 & 17.
1850. *Helix (Fruticicola) limbata*, Drap. : ALBERS, *Heliceen*, p. 69.
1852. *Helix limbata*, FÉRUSSAC : FORBES & HANLEY, *Brit. Moll.*, iv, p. 85.

- 1855, } *Hygromia limbata*, Drap. : H. & A. ADAMS, *Genera Moll.*,  
June. } ii, p. 215.
- 1855, } *Helix (Hygromia) limbata*, Drap. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 127.
1856. *Helix (Hygromane) limbata*, Drap. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 194, pl. xv, f. 14-40.
1857. *Helix limbata*, Drap. : GRAY, Turton's *Manual*, new ed.,  
p. 293.
1862. *Helix limbata*, Draparnaud : JEFFREYS, *Brit. Conch.*, i,  
p. 192.
1863. *Helix limbata*, Drap. : REEVE, *L. & F.-W. Moll. Brit. Is.*,  
p. 67.
1882. *Helix oteca*, Bourguignat [MS.] : LOCARD, *Prod. Malac.*  
*Frang.*, p. 314. (Also : *Ann. Soc. Agric. Lyon*, Sér. V, tom. iv, p. 588.)
1882. *Helix Hylonomia*, Bourguignat [MS.] : LOCARD, *o. c.*,  
p. 315. (*t. c.*, p. 589.)
1882. *Helix sublimbata*, Bourguignat [MS.] : LOCARD, *o. c.*,  
p. 315. (*t. c.*, p. 589.)
1887. *Helix (Helicella) limbata*, Drap. : TRYON, *Manual*, Ser. II,  
vol. iii, p. 189, pl. xlii, f. 33 & 34.
1902. *Hygromanes (Sciaphila) limbata*, Drap. : WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 92.
1909. *Helix (Monacha) limbata*, Drp. : JODOT, *Compta Rend.*  
*Assoc. Frang.*, Sess. 37, p. 427.
1921. *Fruticicola (s.s.) limbata*, Drap. : GUDE & WOODWARD,  
*Proc. Malac. Soc.*, xiv, p. 189.

First definitely recorded as British in 1917, by A. S. Kennard & B. B. Woodward (*Proc. Malac. Soc. Lond.*, xiii, p. 14). It was reported in 1837, by J. Alder (*Mag. Zool. Bot.*, ii, p. 106), on the unconfirmed report of G. B. Sowerby.

British Distribution in Time : Recent.

### 3. *Fruticicola (Capillifera) liberta* (Westerlund).

Etym. :—Lat. *liberta*, a freed-woman.

1801. *Helix sericea* (Mull.) : DRAPARNAUD, *Tabl. Moll. France*,  
p. 85. [Non Müller.]
1805. *Helix sericca*, Mull. : DRAPARNAUD, *Hist. Moll. France*,  
p. 103, pl. vii, f. 16, 17.  
[According to Jeffreys (*Brit. Conch.*, i, p. 310) one specimen was *H. hispida*, var. *subglobosa*, and the other *H. revelata*.]
1812. *Helix hispida*, Linn. : ALTEN, *Syst. Abhandl.*, p. 44,  
pl. iii, f. 6.
1817. *Helix rufescens*, var. *sericea*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 895.



- ?1821. *Helix depilata* (nobis): C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 35, pl. ii, f. 18.  
 [Alder (*Mag. Zool. Bot.*, ii, p. 107) says from specimens in Férussac's cabinet this closely resembles *concinna*, Jeff., while *H. circinnata*, Fér., is a synonym.]
1821. *Helix hispida*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 36, pl. ii, f. 20.
1821. *Helix (Helicella) sericea*, Muller: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44).
- ?1826. *Helicella hispida* (N): RISSO, *Hist. Europ. mérid.*, iv, p. 72.
1830. *Helix hispida*, Linn. [pars]: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 338.
1840. *Helix (Hygromanes) sericea*, Müller: GRAY, *Turton's Manual*, new ed., p. 153, pl. xi, f. 134.
- ?1840, } *Helix (Hygromanes) depilata*, Pfeiffer: GRAY, *o. c.*,  
 Apr. } p. 155, pl. xii, f. 135\*.  
 Post }  
 Sept. } *Helix (Helicella) sericea*, Müller: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 48, pl. xviii, f. 43 & 44.  
 1840. }
- ?1841. *Helix conoidea*: J. BROWN [J. De C. Sowerby?], *Ann. & Mag. Nat. Hist.*, vii, p. 429, pl. ii, f. 4 & 5. [*Non* Draparnaud.]
1845. *Helix (Helicella) sericea*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 70, pl. vii, f. 28 & 29.
1848. *Helix concinna*, Jeff.: DUPUY, *Hist. Moll. France*, p. 186, pl. viii, f. 6.
1856. *Helix (Zenobia) sericea*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 219, pl. xvii, f. 6 & 7.
1856. *Helix (Zenobia) concinna*, Jeff.: MOQUIN-TANDON, *t. c.*, p. 221, pl. xvii, f. 8 & 9.
- ?1857. *Helix (Hygromanes) depilata*, Pfeiffer: GRAY, *Turton's Manual*, new ed., p. 134, pl. xii, f. 135\*.
1857. *Helix (Hygromanes) sericea*, Pfeiffer: GRAY, *o. c.*, p. 135, f. 39, pl. xi, f. 134.
1862. *Helix hispida*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 198; v, pl. xii, f. 3.
1871. *Helix (Hygromia) liberta*, mh.: WESTERLUND, *Nova Acta Soc. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 54.
1876. *Helix (Fruticicola) liberta*, Westerlund: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 106, f. 53.
1884. *Helix (Fruticicola) sericea*, var. *liberta*, Westerlund: CLESSIN, *o. c.*, ed. 2, p. 144, f. 73.
1887. *Helix (Helicella) depilata*, C. Pfeiffer: TRYON, *Manual*, Ser. II, vol. iii, p. 174, pl. xxxix, f. 54-56.
1916. *Hygromia hispida* (Linné) [pars]: TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 17, pl. v.

[GERMAIN (*Moll. France*, ii, p. 129) cites as synonyms:—*Helix sarinica*, Bourg.; *H. urbana*, Coutagne; *H. latiniacensis*, Locard; and *H. montigena*, Locard.]  
 First recorded as British probably in 1820, by Férussac (*Journ. de Physique*, xc, p. 300), as *Helix sericea*, Müll.

British Distribution in Time: Cromerian to Recent.

#### 4. *Fruticicola* (*Capillifera*) *hispida* (Linné).

Etym.:—Lat. *hispidus*, hairy.

1758. *Helix hispida*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 771, no. 591.  
 1767. *Helix hispida*: LINNÆUS, *o. c.*, ed. 12, p. 1244, no. 675.  
 1767. *Cochlea hispida*, Linn.: GEOFFROY, *Traité Coq. Paris*, p. 45.  
 1774. *Helix hispida*: MÜLLER, *Verm. Hist.*, ii, p. 73.  
 1778. *Helix hispida*: DACOSTA, *Test. Brit.*, p. 58, pl. v, f. 10.  
 1791. *Helix hispida*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3625, no. 42.  
 1799. *Helix hispida* [pars]: PULTENEY, *Cat. Dorset.*, p. 47.  
 1801. *Helix hispida*, Linn.: DRAPARNAUD, *Tabl. Moll. France*, p. 84.  
 1803. *Helix rufescens* [pars, juv.]: MONTAGU, *Test. Brit.*, p. 420; *Suppt.*, pl. xxiii, f. 2, right-hand figure.  
 1805. *Helix hispida*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 103, pl. vii, f. 20–22.  
 [Jeffreys (*Brit. Conch.*, i, p. 310) states that the *H. plebeium* of Draparnaud is identical with this species.]  
 1807. *Helix hispida*, Linn. [pars]: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 198.  
 1812. *Helix pilosa*, mihi: ALTEN, *Syst. Abhandl.*, p. 46, pl. iv, f. 7.  
 1813. *Helix hispida* [pars]: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xxi, f. 10.  
 1817. *Helix rufescens* [pars]: DILLWYN, *Cat. Shells*, ii, p. 895.  
 1819. *Teba rufescens*, Mont. [juv.]: LEACH, *Moll. Brit. Synop.* (proofs), p. 96.  
 1820. *Helix montana*, mihi [olim *circinnata*]: STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 86. (In reprint, "Syst. Verzeichn.," p. 12.) [*Nom. nud.*]  
 1821. *Helix* (*Helicella*) *hispida*, Muller: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44.)  
 1821. *Helix* (*Helicella*) *circinnata*, Studer [MS.]: } FÉRUSSAC,  
 1821. *Helix* (*Helicella*) *montana*, Studer [MS.]: } *o. c.*, Jan. ed., p. 47 (June ed., p. 43). [*Fide* Alder, *Mag. Zool. Bot.*, ii, p. 107.]

1821. *Helix sericea*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*,  
i, p. 34, pl. ii, f. 17.
- ?1821. *Helix depilata* (nobis) : C. PFEIFFER, *t. c.*, p. 35, pl. ii,  
f. 18. [Non Draparnaud.]
1826. *Helicella hispida* (N) : RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 72.
1826. *Helicella prevostiana* (N) : RISSO, *t. c.*, p. 73. [Teste  
Caziot.]
1827. [Unnamed] : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl,  
f. 40 & 46.
1828. *Helix montana*, Studer : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, iii, p. 33, pl. vi, f. 9.
1830. *Helix concinna* : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 336.
1831. *Helix hispida*, Drap. : TURTON, *Manual*, p. 57, f. 41.
1833. *Helicella plebejum*, Férussac, var. *circinnata*, mihi [pars] :  
FITZINGER, *Beitr. Landeskr. Oesterr.*, iii, p. 96.
1833. *Helicella plebejum*, var. *montana*, mihi : FITZINGER, *l. c.*
1833. *Helicella hispida*, Férussac : FITZINGER, *l. c.*
1837. *Helix (Bradybena) hispida*, L. : BECK, *Index Moll.*,  
p. 20.
- 1837, } *Fruticicola circin[n]ata*, Studer : HELD, *Isis*, xxx, hft. 12,  
Dec. } col. 914.
- 1837, } *Fruticicola hispida*, Müller : HELD, *l. c.*  
Dec. }
- 1840, } *Helix (Hygromanes) hispida*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 154, pl. iv, f. 41.
- 1840, } *Helix (Hygromanes) concinna*, Jeffreys : GRAY, *o. c.*,  
Apr. } p. 154, pl. xii, f. 135.
- Post } *Helix (Helicella) hispida*, Müller : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, p. 48, pl. xvii, f. 40 & 46.  
1840. }
- ?1841. *Helix conoidea* : J. BROWN [J. De C. Sowerby ?], *Ann.*  
& *Mag. Nat. Hist.*, vii, p. 429, pl. ii, f. 4  
& 5. [Non Draparnaud.]
1845. *Helix (Helicella) hispida*, Müller : BROWN, *Illust. L. &*  
*F.-W. Conch. Brit.*, p. 71, pl. vii, f.  
30 & 31.
1847. *Helix (Bradybena) hispida*, Lin. : BECK, *Amtl. Ber.* 24.  
*Versamm. Deutsch. Naturf.*, p. 122.
1847. *Helix (Bradybena) concinna*, Jeffr. : BECK, *l. c.*
1850. *Helix (Fruticicola) hispida*, Linn. : ALBERS, *Heliceen*,  
p. 71.
1852. *Helix hispida*, Linnæus : FORBES & HANLEY, *Brit. Moll.*,  
iv, p. 68, pl. cxviii, f. 1-3.
1852. *Teba rufescens*, Mont. [juv.] : LEACH, *Moll. Brit. Synop.*,  
p. 70.
- 1855, } *Helix (Hispidella) hispida*, L. : LOWE, *Proc. Zool. Soc.*,  
Mar. } 1854, p. 178.

- 1855, } *Hygromia hispida*, Linn. : II. & A. ADAMS, *Genera Moll.*,  
 June. f ii, p. 214.
- 1855, } *Helix (Hygromia) hispida*, L. : PFEIFFER, *Malak. Blätt.*,  
 Nov. f ii, p. 128.
1856. *Helix (Zenobia) hispida*, Linn. : MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 224, pl. xvii, f. 14-16.
1857. *Helix (Hygromanes) hispida*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 136, f. 40; pl. iv, f. 41.
1857. *Helix (Hygromanes) concinna*, Jeffreys : GRAY, *o. c.*,  
 p. 137, pl. xii, f. 135.
1861. *Helix plebium* [sic] : PORTER, *Geol. Peterborough*, pl. ii,  
 explan. f. 1.
1862. *Helix concinna*, Jeffreys : JEFFREYS, *Brit. Conch.*, i,  
 p. 196; v, pl. xii, f. 2.
1863. *Helix hispida*, Linnæus : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 76, figs.
1864. *Hygromia (Monacha) hispida*, L. : MÖRCH, *Synop. Moll.*  
*Daniae*, p. 18.
1864. *Hygromia (Monacha) concinna*, Jeffr. : MÖRCH, *l. c.*
1887. *Helix (Helicella) hispida*, Linn. : TRYON, *Manual*, Ser. II,  
 vol. iii, p. 172, pl. xxxviii, f. 39-42.
1887. *Helix (Helicella) concinna*, Jeffreys : TRYON, *t. c.*, p. 173,  
 pl. xxxviii, f. 34, lower fig.
1889. *Helix (Fruticicola) nana*, Jeffr. : WESTERLUND, *Fauna*  
*Paläarct. Region*, ii, p. 37.
1895. *Hygromia (Fruticicola) hispida*, L. : PILSBRY, *Manual*,  
 Ser. II, vol. ix, p. 274.
1902. *Hygromanes (Trichia) hispida*, Linn. : WESTERLUND, *Rad*  
*Jugoslav. Akad.*, cli, p. 91.
1906. *Capillifera hispida* (L.) : HONIGMANN, *Abhandl. Mus.*  
*Natur.- & Heilmatk. Madgeburg*, i, p. 190.
1909. *Helix (Trichia) hispida*, Lin. : JODOT, *Compte Rendu*  
*Assoc. Franç.*, Sess. 37, p. 427.
1916. *Hygromia hispida* (Linné) : TAYLOR, *Monog. Moll. Brit.*  
*Is.* [iv], p. 17, pl. v.
- 1921, } *Fruticicola (Capillifera) hispida*, Linné : GUDE & WOOD-  
 Oct. f WARD, *Proc. Malac. Soc.*, xiv, p. 179.
- 1921, } *Fruticicola (Perforatella) hispida*, Linné : GUDE & WOOD-  
 Dec. { WARD, *Ann. & Mag. Nat. Hist.*, Ser. IX,  
 vol. viii, p. 625.

[GERMAIN (*Moll. France*, ii, p. 131) gives the following as synonyms:—*Helix ataxiaca*, Fagot; *H. Goossensi*, Mab.; *H. claverana*, Bourg.; *H. vendeana*, Letourneaux; *H. steneligma*, Bourg.; *H. bellovacina*, Mab.; *H. hypsellina*, Pons d'Hauter; *H. pictavica*, Bourg.; *H. hispidella*, Bourg.; *H. niverniaca*, Locard; *H. fœni*, Locard; *H. chonomphalina*, Locard; *H. barcelonnettensis*, Bourg.; *H. saporosa*, Mabile; *H.*

*vocontiana*, Bourg.; *H. Alixæ*, Bourg.; *H. Baudouini*, Locard; *H. drunasiana*, Locard; *H. cularensis*, Bourg.; *H. microgyra*, Bourg.; *H. hispidosa*, Bourg.; and *H. laticensis*, Locard.

HESSE (*Archiv f. Mollkunde*, 1921, p. 74) adds to these:—*H. lupensis*, Caziot; *H. orzeszkoï*, Caziot; *H. subniverniaca*, Caziot; and *H. tardigyra*, Wstld.]

First recorded as British about 1702–11, by J. Petiver (*Gazophil.*, pl. xciii, f. 12 & 13).

British Distribution in Time: Pliocene to Recent.

##### 5. *Fruticicola (Capillifera) striolata* (C. Pfeiffer).

Etym. :—?Lat. *striolatus*, furrowed.

1778. *Cochlea rufescens* : DACOSTA, *Test. Brit.*, p. 80, pl. iv, f. 6. [*Non Helix rufescens*, Pennant = *H. arbustorum*, Linn., juv.]
1779. *Helix rufescens* : PULTENEY, *Cat. Dorset.*, p. 47.
1803. *Helix rufescens* [pars] : MONTAGU, *Test. Brit.*, p. 420; Suppt. pl. xxiii, f. 2 [left-hand fig.]
- ?1805. *Helix glabella* : DRAPARNAUD, *Hist. Moll. France*, p. 102, pl. vii, f. 6. [*Fide* Jeffreys, *Brit. Conch.*, i, p. 310.]
1807. *Helix rufescens*, Pennant : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 196.
- ?1812. *Helix sylvestris*, mihi : ALTEN, *Syst. Abhandl.*, p. 69, pl. vii, f. 13.
1813. *Helix rufescens* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xx, f. 6.
- ?1814. *Helix altenana*, mihi : GÄRTNER, *Ann. Wetterau. Gesell.*, iii, p. 307.
1817. *Helix rufescens*, Penn. : DILLWYN, *Cat. Shells*, ii, p. 895.
1819. *Teba rufescens*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs), p. 96.
1821. *Helix (Helicella) rufescens*, Montagu : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 48 (June ed., p. 44).
1823. *Helix rufescens* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1827. [Unnamed] : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 47 & 53.
1828. *Helix striolata* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 28, pl. vi, f. 8.
1830. *Helix rufescens*, Penn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 337.
1831. *Helix rufescens*, Montagu : TURTON, *Manual*, p. 37, f. 28.
1831. *Teba rufescens* : LEACH, in Turton, *Manual*, p. 38, in synon.
1833. *Helix plebejum*, FÉRUSSAC, var. *circinnata*, mihi [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 96.

1837. *Helix (Bradybana) rufescens*, Pennant : BECK, *Index Moll.*, p. 20.
1840. { *Helix (Hygromanes) rufescens*, Penn. : GRAY, Turton's  
Apr. { *Manual*, new ed., p. 156, pl. iii, f. 28 & 28\*;  
xi, f. 28\*.
- Post { *Helix (Helicella) rufescens*, Pennant : BROWN, *Illust.*  
Sept. { *Conch. Brit.*, ed. 2, p. 46, pl. xvii, f. 47 & 53.  
1840. }
1841. *Helix rufina*, PAIR. : PFEIFFER, *Symbol. Hist. Helic.*, i,  
p. 39.
1845. *Helix (Helicella) rufescens*, Pennant : BROWN, *Illust. L.*  
& *F.-W. Conch. Brit.*, p. 64, pl. vii, f. 14  
& 15.
1847. *Helix (Bradybana) rufescens*, Penn. : BECK, *Amtl. Ber.*  
24. *Versamm. Deutsch. Naturf.*, p. 122.
1850. *Helix (Fruticicola) rufescens*, Pennant : ALBERS, *Heli-*  
*ceen*, p. 71.
1852. *Helix rufescens*, Pennant : FORBES & HANLEY, *Brit.*  
*Moll.*, iv, p. 66, pl. cxviii, f. 4, 7 & 10.
1852. *Teba rufescens*, Mont. : LEACH, *Moll. Brit. Synop.*  
p. 70.
1855. } *Hygromia rufescens*, Penn. : H. & A. ADAMS, *Genera*  
June. } *Moll.*, ii, p. 215.
1855. } *Helix (Hygromia) rufescens*, Penn. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 127.
1856. *Helix (Zenobia) rufescens*, Penn. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 206, pl. xvi, f. 18  
& 19.
1857. *Helix (Hygromanes) rufescens*, Penn. : GRAY, Turton's  
*Manual*, new ed., p. 132, f. 38; pl. iii, f. 28  
& 28\*; xi, f. 28\*.
1862. *Helix rufescens*, Pennant : JEFFREYS, *Brit. Conch.*, i,  
p. 194; v, pl. xii, f. 1.
1863. *Helix rufescens*, Pennant : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 75, figs.
1887. *Helix (Helicella) rufescens*, Pennant : TRYON, *Manual*,  
Ser. II, vol. iii, p. 175, pl. xxxix, f. 66-68.
1888. *Helix abludens*, Locard : LOCARD, *Ann. Soc. Linn. Lyon*,  
xxxiv, p. 334.
1889. *Helix (Fruticicola) rufescens*, Penn. : WESTERLUND,  
*Fauna Paläarct. Region*, ii, p. 40.
1889. *Helix (Fruticicola) striolata*, C. Pfr. : WESTERLUND, *l. c.*
1894. *Helix (Trichia) britannica*, n. sp. : WESTERLUND,  
*Nachrbl. Deutsch. Malak. Gesell.*, xxvi, p. 164.
1894. *Helix rufescentella*, Brgt. nov. sp. in coll. : LOCARD, *Coq.*  
*terrest. France*, p. 128. (Also *Ann. Soc.*  
*Agric. Lyon*, Ser. VII, tom. iii, 1896, p. 16.)
1895. *Hygromia (Fruticicola) rufescens*, Penn. : PILSBRY,  
*Manual*, Ser. II, vol. ix, p. 274.



1904. *Fruticicola rufescens*, Penn.: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 181.
1913. *Helix montana* (Studer), Pfeiffer: SMITH, *Ann. & Mag. Nat. Hist.*, Ser. VIII, vol. xi, p. 264. -
1913. *Helix striolata* [C. Pfeiffer]: KENNARD & WOODWARD, *Ann. & Mag. Nat. Hist.*, Ser. VIII, vol. xi, p. 428.
1916. *Hygromia striolata* (C. Pfeiffer): TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 3, pl. v.
- 1921, } *Fruticicola* (s.s.) *striolata*, C. Pfr.: HESSE, *Arch. f. Sept.* } *Mollkund.*, 1921, p. 65.
- 1921, } *Fruticicola* (*Capillifera*) *striolata*, C. Pfeiffer: GUDE & Oct. } WOODWARD, *Proc. Malac. Soc.*, xiv, p. 189.
- 1921, } *Fruticicola* (*Perforatella*) *striolata*: GUDE & WOODWARD, Dec. } *Ann. & Mag. Nat. Hist.*, Ser. IX, vol. viii, p. 625.

First recorded as British in 1778, by DaCosta, as *Cochlea rufescens*. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

#### 6. *Fruticicola* (*Ponentina*) *subvirescens* (Bellamy).<sup>1</sup>

Etym.:—Lat. *sub* + *virescens*, somewhat greenish.

1839. *Helix subvirescens*: BELLAMY, *Nat. Hist. S. Devon*, p. 420, pl. xviii.
- 1840, } *Helix* (*Hygromanes*) *revelata*, Férussac: GRAY, Turton's Apr. } *Manual*, new ed., p. 152, pl. xi, f. 133. [Non Férussac.]
- Post } *Helix* (*Helicella*) *revelata*, Férussac [pars]: BROWN, Sept. } *Illust. Conch. Brit.*, ed. 2, p. 48.
1840. }
1845. *Helix* (*helicella*) *revelata*, Férussac [pars]: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 69.
1852. *Helix revelata*, Férussac: FORBES & HANLEY, *Brit. Moll.*, iv, p. 70, pl. cxix, f. 1-3.
1855. *Hygromia revelata*, Férus. [pars]: H. & A. ADAMS, *Genera Moll.*, ii, p. 215.
1857. *Helix* (*Hygromanes*) *revelata*. Férussac: GRAY, Turton's *Manual*, new ed., p. 139, pl. xi, f. 133.
1857. *Helix subviridis*, Bellamy: GRAY, *o. c.*, p. 139, in synonym. [Non Bellamy.]
1860. *Helix ptilota*: BOURGUIGNAT, *Malac. Bretagne*, p. 55, pl. i, f. 5-8.
1862. *Helix revelata*, Michaud: JEFFREYS, *Brit. Conch.*, i, p. 202; v, pl. xii, f. 5. [Non Michaud.]
1863. *Helix revelata*, Férussac: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 78, figs.

<sup>1</sup> For a discussion on the identity of this species, see KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiii, 1919, p. 133.

1879. *Helix (Hygromia) revelata*, Fér. [pars]: PFEIFFER, *Nomencl. Helic. vivent.*, ed. Clessin, p. 122.
1888. *Helix (Fruticicola) revelata*, Fér.: WESTERLUND, *Fauna Paläarct. Region*, ii, p. 61.
1895. *Hygromia (Fruticicola) revelata*, Fér. [pars]: PILSBRY, *Manual*, Ser. II, vol. ix, p. 274.
1916. *Hygromia revelata* (Michaud): TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 36, pl. v.
- 1921, } *Fruticicola (Ponentina) subvirescens*, Bellamy: HESSE,  
Sept. } *Arch. f. Mollkunde*, 1921, p. 62.
- 1921, } *Fruticicola (Capillifera) subvirescens*, Bellamy: GUDE &  
Oct. } WOODWARD, *Proc. Malac. Soc.*, xiv, p. 180.
- 1921, } *Fruticicola (Perforatella) subvirescens*, Bellamy: GUDE  
Dec. } & WOODWARD, *Ann. & Mag. Nat. Hist.*,  
Ser. IX, vol. viii, p. 625.

First recorded as British in 1839, by J. C. Bellamy, as  
*Helix subvirescens*. (See ref. above.)

British Distribution in Time: Recent.

7. †**Fruticicola (Ponentina) montivaga** (Westerlund).

Etym. :—Lat. *mons*, a mountain + *vagus*, a wanderer.

1876. *Helix (Trichia) montivaga*, mh: WESTERLUND, *Fauna Europ. Moll. extramar. Prod.*, p. 66.
1880. *Helix Salmurina*: SERVAIN, *Études Moll. Españ. & Port.*, p. 54.
1881. *Helix (Fruticicola) montivaga*, West.: KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 23.
1887. *Helix (Helicella) Salmurina*, Servain: TRYON, *Manual*, Ser. II, vol. iii, p. 181, pl. xli, f. 83-85.
1889. *Helix (Fruticicola) montivaga*, West.: WESTERLUND, *Fauna Paläarct. Region*, ii, p. 62.
1895. *Hygromia (Fruticicola) montivaga*, West.: PILSBRY, *Manual*, Ser II, vol. ix, p. 274.

First recorded as British in 1902, by the Rev. R. A. Bullen (*Proc. Malac. Soc. Lond.*, v, pp. 186 & 188), from the Holocene deposits at Harlyn Bay, near Padstow, Cornwall.

British Distribution in Time: Holocene.

Genus: 10. **HELICODONTA**, Férussac.

Etym. :—Gr. ἑλιξ + ὀδούς, a toothed helix.

Type :—*Helix obvoluta*, Müller.

(*Helix*, vett. auctt.)

1821. *Helicodonta*, subg. 4 of *Helix* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 37 (June ed., p. 33).

1826. *Helicodonta* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 65,  
for *H. obvoluta* [only].
1833. *Trigonostoma* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii,  
p. 97. [Non Blainville, 1825.]
1837. *Vortex* : subg. 23 of *Helix* : BECK, *Index Moll.*, pp. 29.  
[Non Oken, 1815.]
1837. *Gonostoma* : HELD, *Isis*, xxx, hft. 12, col. 915. [Non  
Raffinesque, 1810 (Pisces).]
1847. *Euphemia*, Leach [MS. ?] : BECK, *Amtl. Ber. 24. Versamm  
Deutsch. Naturf.*, p. 122. [Non Robineau-  
Desvoidy, 1830 (Diptera).]
1855. *Polygyra*, Say, subg. of *Anchistoma*, Klein [pars] : H. &  
A. ADAMS, *Genera Moll.*, ii, p. 207.

### 1. *Helicodonta obvoluta* (Müller).

Etym. :—Lat. *obvolutus*, wrapped round.

1774. *Helix obvoluta* : MÜLLER, *Vern. Hist.*, ii, p. 27.
1791. *Helix obvoluta*, Müll. : GMELIN, in *Linn. Syst. Nat.*,  
ed. 13, i, pt. 6, p. 3634.
1791. *Helix holosericea* : GMELIN, *t. c.*, p. 3641.
- ?1792. *Helix bilabiata*, nobis : OLIVI, *Zool. Adriat.*, p. 177.
1792. *Helix trigonophora* : LAMARCK, *Journ. Hist. Nat.*, ii,  
p. 349, pl. xlii, f. 2.
- 1801, } *Planorbis obvolutus* : POIRET, *Coq. Aisne*, p. 89.  
Apr. }
- 1801, } *Helix obvoluta* : DRAPARNAUD, *Tabl. Moll. France*, p. 89.  
July. }
1805. *Helix obvoluta*, Müll. : DRAPARNAUD, *Hist. Moll. France*,  
p. 121, pl. vii, f. 27–29.
1815. *Vortex obvoluta* : OKEN, *Lehrb. Naturg.*, iii, abth. 1,  
p. 314.
1817. *Helix obvoluta*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 914.
1821. *Helix (Helicodonta) obvoluta*, Muller : FÉRUSAC, *Tabl.  
syst. Limaçons*, Jan. ed., p. 38 (June ed.,  
p. 34).
1821. *Helix obvoluta*, Müll. : C. PFEIFFER, *Naturg. Deutsch.  
Moll.*, i, p. 41, pl. ii, f. 28.
1823. *Helix obvoluta* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.
1826. *Helicodonta obvoluta* : RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 65.
1833. *Trigonostoma obvolutum*, mihi : FITZINGER, *Beitr.  
Landesk. Oesterr.*, iii, p. 98.
1837. *Helix (Vortex) obvoluta*, O. Müll. : BECK, *Index Moll.*,  
p. 29.
1837. *Gonostoma obvoluta*, Müll. : HELD, *Isis*, xxx, hft. 12,  
col. 915.
- 1840, } *Helix (Trigonostoma) obvoluta*, Müller : GRAY, *Turton's  
Apr. }* *Manual*, new ed., p. 139, pl. xi, f. 131.

1840. *Trigonostoma obvolutum* : HARTMANN, *Gastropoden*, p. 14,  
pl. vi.
- Post } *Helix (Trigonostoma) obvoluta*, Müller : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 53, pl. xviii\*, f. 13  
1840. } & 14.
1845. *Helix (Trigonostoma) obvoluta*, Müller : BROWN, *Illust.*  
*L. & F.-W. Conch. Brit.*, p. 87, pl. ix, f. 16  
& 17.
1847. *Helix (Euphemia) obvoluta*, Müll. : BECK, *Annl. Ber.* 24.  
*Versamm. Deutsch. Naturf.*, p. 122.
- 1847, } *Iberus (Trigonostoma) obvoluta* : GRAY, *Proc. Zool. Soc.*  
Nov. } *Lond.*, 1847, p. 172.
1850. *Polygyra obvoluta* : M. E. GRAY, *Fig. Moll. Anim.*, iv,  
pl. 290, f. 15 (explan.).
1850. *Helix (Gonostoma) obvoluta*, Müll. : ALBERS, *Heliccen*, p. 94.
1852. *Helix obvoluta*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
iv, p. 63, pl. exvii, f. 1-3.
- 1855, } *Anchistoma (Polygyra) obvolutum*, Müll. : H. & A. ADAMS,  
June. } *Genera Moll.*, ii, p. 207.
- 1855, } *Helix (Trigonostoma) obvoluta*, Müll. : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 114, pl. x, f. 26-30.
- 1855, } *Helix (Polygyra) obvoluta*, Müll. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 136.
1857. *Helix (Trigonostoma) obvoluta*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 116, pl. xi, f. 131.
1862. *Helix obvoluta*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 229 ;  
v, pl. xiv, f. 3.
1863. *Helix obvoluta*, Müller : REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 73, figs.
1871. *Helix (Anchistoma) obvoluta*, Müll. : KOBELT, *Cat. Europ.*  
*Binnenconch.*, p. 9.
1886. *Anchistoma (Gonostoma) obvoluta*, Müll. : POLLONERA,  
*Mem. Accad. Sci. Torino*, Ser. II, tom.  
xxxviii, 1888, p. 35. (Reprint, 1886, p. 13.)
1902. *Gonostoma (Helicodonta) obvoluta*, Müll. : WESTERLUND,  
*Rad Jugoslav. Akad.*, cli, p. 90.

First recorded as British in 1763, by R. Brookes (*Nat. Hist.*, iv, p. 302), from, it would seem, dead shells reported at "Charlton forest in Sussex."

British Distribution in Time : Pleistocene to Recent,

Genus : 11. **CHILOTREMA**, Leach.

Etym. :—Gr. *χῆλος*, a lip, and *τρῆμα*, a hole.

Type :—*Helix lapicida*, Linnæus.

(*Helix*, *Cochlea*, etc., vett. auctt.)

1807. *Pleurodonte* [pars] : FISCHER VON WALDHEIM, *Mus.-*  
*Démidorff*, iii, p. 229.

1819. *Chilotrema* : LEACH, *Moll. Brit. Synop.* (proofs), p. 106.  
 1821. *Helicigona*, subg. 5 of *Helix* [pars] : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 40 (June ed., p. 36).  
 1822. *Carocolla* [pars] : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 94.  
 1826. *Heliciogna* [pars] : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 66.  
 1828. *Helicogona*, Fér. [em.] : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 57.  
 1831. *Chilotrema* : LEACH, *Turton's Manual*, p. 66, in synon.  
 1833. *Latomus* : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 97.  
 1837. *Lenticula* : HELD, *Isis*, xxx, hft. 12, col. 913.  
 1840. *Caracolla* [sic], Lam., subg. of *Lucerna*, Humph. [pars] : SWAINSON, *Treat. Malac.*, p. 328.  
 1855. *Cheilotrema*, Leach : LOWE, *Proc. Zool. Soc. Lond.*, 1854, p. 197.  
 1895. *Helicigona*, s.s. (Fér.) Pilsbry : PILSBRY, *Man. Conch.*, Ser. II, vol. ix, p. 296.

### 1. *Chilotrema lapicida* (Linné).

Etym. :—Lat. *lapicida*, a stonecutter.

1758. *Helix lapicida* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 768, no. 572.  
 1767. *Helix lapicida* : LINNÆUS, *o. c.*, ed. 12, p. 1241, no. 656. [Linné's *Helix albella* (*op. cit.*, ed. 10, p. 768, no. 574) was probably a young and bleached example of this species. Cf. Pfeiffer, *Mon. Helic. vivent.*, vii, p. 432, note \*\*.]  
 1767. *Cochlea lapicida*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 42.  
 1774. *Helix lapicida* : MÜLLER, *Verm. Hist.*, ii, p. 40.  
 1777. *Helix lapicida*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 132; 4to, p. 115, pl. lxxxiii, f. 121.  
 1778. *Helix acuta* : DACOSTA, *Test. Brit.*, p. 55, pl. iv, f. 9.  
 1791. *Helix lapicida* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3613.  
 1791. *Helix affinis* : GMELIN, *l. c.*, p. 3621.  
 1798. *Angaria polita* : BOLTEN, *Mus. Bolt.*, ii, p. 72, no. 918.  
 1799. *Helix lapicida* : PULTENEY, *Cat. Dorset.*, p. 46.  
 1801. *Helix lapicida* : DRAPARNAUD, *Tabl. Moll. France*, p. 88.  
 1803. *Helix lapicida*, Lin. : MONTAGU, *Test. Brit.*, p. 435.  
 1805. *Helix lapicida*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 111, pl. vii, f. 35-37.  
 1807. *Pleurodonte lapicida*, mihi : FISCHER VON WALDHEIM, *Mus.-Démidoff*, iii, p. 230.  
 1807. *Helix lapicida*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 187.

1813. *Helix lapicida*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 52, pl. xx, f. 9.
1815. *Vortex lapicida*: OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 314.
1817. *Helix lapicida*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 887.
1819. *Chilotrema lapicida*, Linn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 106.
1821. *Helix (Helicigona) lapicida*, Linné: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 41 (June ed., p. 37).
1821. *Helix lapicida*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 40, pl. ii, f. 26 & 27.
1822. *Carocolla lapicida*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 2, p. 99.
1823. *Helix lapicida*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 457.
1826. *Helicigona lapicida*: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 66.
1826. *Helicella mamillata* (N): RISSO, *t. c.*, p. 70. [*Teste Bourguignat and Caziot.*]
1827. *Carocolla lapicida*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 9-11.
1828. *Helix (Helicogona) lapicida*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 57.
1830. *Helix acuta*, Da Costa: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 344.
1831. *Carocolla lapicida*, Linn.: TURTON, *Manual*, p. 66, f. 51.
1831. *Chilotrema Lapicida*, Linn.: LEACH, in Turton, *Manual*, p. 66, in synonym.
1833. *Latomus lapicida*, nūhi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 97.
1840. } *Helix (Chilotrema) lapicida*, Linn.: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 140, pl. v, f. 51.
1840. } *Lucerna (Caracolla) lapicida*, Chem.: SWAINSON, *Treatise*  
May. } *Malac.*, p. 328.
- Post } *Helix (Helicigona) lapicida*, Linné: BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 45, pl. xvii, f. 9-11.
1840. }  
1837. *Lenticula lapicida*, Linn.: HELD, *Isis*, xxx, hft. 12, col. 913.
1845. *Helix (Helicigona) lapicida*, Linné: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 60, pl. vii, f. 1-3; xxv, f. 4.
1847. *Iberus (Chilotrema) lapicida*: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 172.
1848. *Helix rhenana*, Hartm. [MS. ?]: PFEIFFER, *Mon. Helic. Vivent.*, i, p. 370.
1848. *Helix explanata*, Schranck [MS. ?]: PFEIFFER, *t. c.*, p. 371. [*Non Müller.*]
1850. *Iberis lapicida*: M. E. GRAY, *Fig. Moll. Anim.*, iv, pl. 292, f. 4 (explan.).



1852. *Helix lapicida*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iv, p. 65, pl. exvi, f. 3 & 4.
1852. *Chilotrema lapicida*, Linn. : LEACH, *Moll. Brit. Synop.*, p. 77.
1855. } *Cheilotrema lapicida*, L. : LOWE, *Proc. Zool. Soc. Lond.*,  
Mar. } 1854, p. 197.
1855. } *Iberus (Helicigona) lapicidus*, Linn. : H. & A. ADAMS,  
June. } *Genera Moll.*, ii, p. 210.
1855. } *Helix (Vortex) lapicida*, Linn. : MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 137, pl. xi, f. 22-27.
1855. } *Helix Lecoquii*, Puton in Litt. : MOQUIN-TANDON, *t. c.*,  
Sept. } p. 138.
1857. *Helix (Chilotrema) lapicida*, Linn. : GRAY, *Turton's Manual*, new ed., p. 117, pl. v, f. 51.
1858. *Helix lapidicola* : BELLAIRS, *Illust. Cat. Brit. Shells*, p. 12, f. 26.
1860. *Helix (Campylæa) lapicida*, L. : MARTENS, *Albers, Heliceen*, ed. 2, p. 125.
1862. *Helix lapicida*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 227; v, pl. xiv, f. 2.
1863. *Helix lapicida*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 74, figs.
1864. *Arianta (Chilotrema) lapicida* : MÖRCH, *Synop. Moll. Danicæ*, p. 23.
1876. *Helix Andorrica* : BOURGUIGNAT, *Sp. nov. Moll. Europ.*, p. 38.
1894. *Helix Lecoqi*, Puton : LOCARD, *Coq. terrest. France*, p. 137. (Also *Ann. Soc. Agric. Lyon*, Sér. VII, tom. iii, 1896, p. 25.)
1894. *Helix lychnucha*, Locard : LOCARD, *o. c.*, p. 137. (*t. c.*, p. 25.) [*Non lychnuchus*, Müller.]
1912. *Helicigona lapicida* (Linné) : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 399, pl. xix.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, iv, p. 99, pl. ii, f. 13).

British Distribution in Time : Pleistocene to Recent.

#### Genus : 12. ARIANTA, Leach.

Etym. :—Named after Ariantas, a king of Scythia.

Genotype :—*Helix arbustorum*, Linné.

(*Helix*, *Cochlea*, vett. auctt.)

1819. *Arianta* : LEACH, *Moll. Brit. Synop.* (proofs), p. 86.
1821. *Helicogena*, subg. 3 of *Helix* [pars] : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 31 (June ed., p. 27).
1831. *Arianta* : LEACH, in Turton, *Manual*, p. 35, in synonym.

1837. *Cryptomphalus*, Ag. (Msc.), subg. 2 of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell. Naturw.*, i [no. 2], p. 5.
1837. *Cingulifera* [pars]: HELD, *Isis*, xxx, hft. 12, col. 911.
1860. *Arianta*, subg. 37 of *Helix*: MARTENS, Albers, *Heliceen*, ed. 2, p. 127. [Spelling altered under the idea that the name was derived from the Greek, ἀρείων.]

### 1. *Arianta arbustorum* (Linné).

Etym.:—Lat. gen. pl. of *arbustum*, a plantation.

1758. *Helix arbustorum*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 771, no. 596.
1767. *Helix arbustorum*: LINNÆUS, *o. c.*, ed. 12, p. 1245, no. 680.
1774. *Helix arbustorum*: MÜLLER, *Verm. Hist.*, ii, p. 55.
1777. *Helix rufescens*: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 134; 4to, p. 116, pl. lxxxv, f. 127.
1777. *Helix arbustorum*, Linn.: PENNANT, *t. c.*, 8vo, p. 136; 4to, p. 118, pl. lxxxv, f. 130.
1778. *Cochlea unifasciata*: DACOSTA, *Test. Brit.*, p. 75, pl. xvii, f. 6 (reversed).
1791. *Helix arbustorum*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3630, no. 53.
1799. *Helix arbustorum*: PULTENEY, *Cat. Dorset.*, p. 47.
1801. *Helix arbustorum*: DRAPARNAUD, *Tabl. Moll. France*, p. 75.
1803. *Helix arbustorum*, Linn.: MONTAGU, *Test. Brit.*, p. 413.
1805. *Helix arbustorum*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 88, pl. v, f. 18.
1807. *Helix arbustorum*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 202.
1813. *Helix arbustorum*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. ii, f. 6.
1817. *Helix arbustorum*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 924.
1819. *Arianta arbustorum*, Linn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 86.
1821. *Helix (Helicogena) arbustorum*, Linné: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 34 (June ed., p. 30).
1821. *Helix arbustorum*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 24, pl. ii, f. 7 & 8.
1823. *Helix arbustorum*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.
1827. *Helix arbustorum*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxix, f. 16, 20–22.
1828. *Helix turgidula*: WOOD, *Index Test.*, Suppt., p. 21, pl. vii, f. 6. (Abnormality.)

1830. *Helix arbustorum*, Linn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 329.
1831. *Helix arbustorum*, Linn. : TURTON, *Manual*, p. 35, f. 25.
1831. *Arianta arbustorum* : LEACH, in Turton, *Manual*, p. 35, in synon.
- ?1833. *Helix canigonensis*, nob. : BOUBÉE, *Bull. Hist. Nat. France*, p. 25.
1834. *Helix Xatartii*, nob. : FARINES, *Bull. Soc. Philom. Perpignan*, 1834, p. 65, pl., f. 7-9. (Also in *Ann. Sci. Nat.*, Sér. II (Zool.), ii, 1834, p. 122.)
1837. *Helix alpestris*, Ziegl. : ROSSMÄSSLER, *Icon.*, i, pt. 5-6, f. 297 b.
1837. *Helix picea*, Ziegl. : ROSSMÄSSLER, *t. c.*, f. 297 d.
1837. *Helix Wittmannii*, Zawadsky : ROSSMÄSSLER, *t. c.*, f. 297d.
1837. *Cingulifera arbustorum*, Linn. : HELD, *Isis*, xxx, hft. 12, col. 911.
1839. *Helix unifasciata*, N. : BIVONA, *Giorn. Sci. Lett. Palermo*, lxiv (altered in MS. to lxvi), p. 230.
- 1840, } *Helix (Arianta) arbustorum*, Linn. : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 137, pl. iii, f. 25.
- Post } *Helix (Helicogena) arbustorum*, Linnæus : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 44, pl. xvi, f. 16,  
1840. } 20-22.
1845. *Helix (Helicogena) arbustorum*, Linnæus : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 59, pl. v, f. 25-28.
1852. *Helix arbustorum*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iv, p. 48, pl. cxv, f. 5 & 6.
1852. *Arianta arbustorum*, Linn. : LEACH, *Moll. Brit. Synop.*, p. 62.
- 1855, } *Iberus (Arianta) arbustorum*, Linn. : H. & A. ADAMS,  
June. } *Genera Moll.*, ii, p. 211.
- 1855, } *Helix (Arianta) arbustorum*, Linn. : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 123, pl. xi, f. 1-4.
1857. *Helix (Arianta) arbustorum*, Linn. : GRAY, Turton's *Manual*, new ed., p. 115, pl. iii, f. 25.
1860. *Helix (Arianta) arbustorum*, Linn. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 128.
1862. *Helix arbustorum*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 188; v, pl. xi, f. 4.
1863. *Helix arbustorum*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 63, figs.
1871. *Helix (Campylæa) arbustorum*, L. : KOBELT, *Cat. Europ. Binnenconch.*, p. 16.
1888. *Helix arbusticola*, Nob. : CHATENIER, *Cat. Moll. Drôme*, p. 9.
1895. *Helicigona (Arianta) arbustorum*, L. : PILSBRY, *Manual*, Ser. II, vol. ix, p. 306.

1914. *Helicigona (Arianta) arbustorum* (Linné): TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 417, pl. xxxiv.

[GERMAIN (*Moll. France*, ii, pp. 146-147) gives as synonyms:—*H. thamnivaga*, Mab.; *H. hypnicola*, Mab.; *H. albulana*, Bourg.; *H. Feroeli*, Bourg.; *H. vibrayana*, Bourg.; *H. nazarina*, Bourg.; *H. illusana*, Servain; *H. themita*, Mab.; *H. camprodunica*, Kobelt; *H. Fagoti*, Bourg.; *H. alpicola*, Charpentier; *H. trochoidalis*, Roffiaen; and *H. Repellini*, Charpentier. There are also named varieties without number.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, iv, p. 99, pl. ii, f. 4).

British Distribution in Time: Pliocene to Recent.

Genus: 13. **HELIX**, Linné.

Etym.:—Lat. *helix*, from Gr. ἑλῆξ, a spiral.

Type:—*Helix pomatia*, Linné. (Selected by Fleming, 1818.)

1758. *Helix*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 768.  
 1767. *Cochlea* [pars]: GEOFFROY, *Traité Coq. Paris*, p. 24.  
 1798. *Janthina* [pars]: BOLTEN, *Mus. Bolt.*, ii, p. 75.  
 1821. *Helicogena*, subg. 3 of *Helix* [pars]: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 31 (June ed., p. 27).  
 1837. *Pomatia*, B., subg. 40 of *Helix* [pars]: BECK, *Index Moll.*, p. 43. [Non Bolten, 1798, nec Leach, 1831.]  
 1837. *Cænatoria* [pars]: HELD, *Isis*, xxx, hft. 12, col. 910.  
 1855. *Pentalænia* [pars]: SCHMIDT, *Abhandl. Naturw. Ver. Sachs.*, i, no. 1, p. 11.

Sub-gen.: **Helix**, s.s.

1758. *Helix*: as above.  
 1778. *Cornu*: BORN, *Index Mus. Vindobon.*, i, 8vo, p. 371: *Test. Mus. Vindobon.*, 1780, fol., p. 361, pl. xiii, f. 10 & 11. [For *C. copiae*, an abnormal form of *H. aspersa*, Müll.]  
 [If *aspersa* be placed in a separate section from *pomatia*, that section will have to be entitled "*Cornu*."  
 1803. *Cornucopia*: SHAW & NODDER, *Nats. Miscell.*, xiv, pl. dlxviii. [For *C. helicina*, a monstrous form of *H. aspersa*, Müll.]  
 1819. *Pomatia*: LEACH, *Moll. Brit. Synop.* (proofs), p. 64.

1826. *Helicogena* [pars]: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 59. [Exclusive of *aspersa*.]  
 1831. *Pomatia*: LEACH, *Turton's Manual*, p. 45, in synonym.  
 1837. *Cryptomphalus*, Ag. (Msc.) subg. 2 of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell. Naturw.*, i, [no. 2], p. 5.

Sub-gen.: **Ἐρπᾶα**, Held.

Etym.:—Gr. *κηπάιος*, pertaining to a garden.

Type:—*Helix nemoralis*, Linn.

1819. *Tachea*: LEACH, *Moll. Brit. Synop.* (proofs), p. 84. [Non Fleming, 1822 (Aves).]  
 1826. *Helicogena* [pars]: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 59.  
 1831. *Tachea*: LEACH, *Turton's Manual*, p. 33, in synonym. [Non Fleming, 1822 (Aves).]  
 1837. *Cryptomphalus*, Ag. (Msc.) subg. 2 of *Helix* [pars]: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell. Naturw.*, i [no. 2], p. 5.  
 1837. *Helicogena*, RISSO, subg. 37 of *Helix* [pars]: BECK, *Index Moll.*, p. 37.  
 1837. *Ἐρπᾶα*: HELD, *Isis*, xxx, hft. 12, col. 910.  
 1850. *Archelix*, subg. 29 of *Helix* [pars]: ALBERS, *Heliccen*, p. 98.

1. ***Helix* (s.s.) pomatia**, Linné.

Etym.:—Gr. *πόμα*, a lid.

1758. *Helix pomatia*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 771, no. 593.  
 1767. *Helix pomatia*: LINNÆUS, *o. e.*, ed. 12, p. 1244, no. 677.  
 1767. *Cochlea pomatia*, Linn.: GEOFFROY, *Traité Coq. Paris*, p. 24.  
 1774. *Helix pomatia*: MÜLLER, *Verm. Hist.*, ii, p. 43.  
 1774. *Helix pomaria*: MÜLLER, *t. c.*, p. 45. [Sinistral monstrosity.]  
 1774. *Helix scalaris*: MÜLLER, *t. c.*, p. 113. [Scalariform monstrosity.]  
 1777. *Helix pomatia*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 134; 4to, p. 117, pl. lxxxiv, f. 129.  
 1778. *Cochlea pomatia*: DACOSTA, *Test. Brit.*, p. 67, pl. iv, f. 14.  
 1791. *Helix pomatia*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3627.  
 1791. *Helix scalaris*: GMELIN, *t. c.*, p. 3652.  
 1798. *Janthina pomatia*: BOLTEN, *Mus. Bolt.*, ii, p. 76, no. 990.  
 1799. *Helix pomatia*: PULTENEY, *Cat. Dorset.*, p. 47.  
 1801. *Helix pomatia*: DRAPARNAUD, *Tabl. Moll. France*, p. 74.  
 1803. *Helix pomatia*, Lin.: MONTAGU, *Test. Brit.*, p. 405.

1805. *Helix pomatia*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 87, pl. v, f. 20-22.
1807. *Helix pomatia*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 201.
1813. *Helix pomatia* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xx, f. 14.
1817. *Helix pomatia*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 920.
1817. *Helix scalaris*, Müll. : DILLWYN, *t. c.*, p. 921.
1819. *Pomatia antiquorum* : LEACH, *Moll. Brit. Synop.* (proofs), p. 89.
1821. *Helix (Helicogena) pomatia*, Linn. : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 33 (June ed., p. 29); *Hist.*, pl. xxi, & xxiv, f. 2.
1821. *Helix pomatia*, Linn. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 25, pl. ii, f. 9.
1823. *Helix pomatia* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 458.
1826. *Helicogena pomatia*, Linn. : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 60.
1827. *Helix pomatia*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxix, f. 6, 12 & 14.
1830. *Helix pomatia*, Linn. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 329.
1831. *Helix pomatia*, Linn. : TURTON, *Manual*, p. 44, f. 34.
1831. *Pomatia antiquorum* : LEACH, in Turton, *Manual*, p. 45, in synon.
1837. *Helix (Pomatia) pomatia*, Linn. : BECK, *Index Moll.*, p. 43.
1837. *Cænatoria pomatia*, Linn. : HELD, *Isis*, xxx, hft. 12, col. 910.
1840. } *Helix (Pomatia) pomatia*, Linn. : GRAY, Turton's *Manual*,  
Apr. } new ed., p. 135, pl. iv, f. 34.
- Post } *Helix (Helicogena) pomatia*, Linnæus : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 43, pl. xvi, f. 6, 12  
1840. } & 14.
1841. *Helicogena pomatia* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 98, pl. 29, 30 [as *Helicogona*] & 55.
1845. *Helix (Helicogena) pomatia*, Linnæus : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 54, pl. vi, f. 1-3.
1852. *Helix pomatia*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iv, p. 46, pl. cxvi, f. 2.
1852. *Pomatia antiquorum* : LEACH, *Moll. Brit. Synop.*, p. 64.
1855. *Helix (Pentatænia) pomatia* : SCHMIDT, *Abhandl. Naturw. Ver. Sachs.*, i, no. 1, p. 11.
1856. *Helix (Helicogena) pomatia*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 179, pl. xiv, f. 1-9.
1857. *Helix (Pomatia) pomatia*, Linn. : GRAY, Turton's *Manual*, new ed., p. 111, pl. iv, f. 34.
1862. *Helix pomatia*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 177; v, pl. xi, f. 1.



1863. *Helix pomatia*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 61, fig.
1902. *Pomatia (Helicogena) pomatia*, Lin. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 100.
1909. *Helix pomatia*, Linné : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 211, pl. xx & xxi.
- [GERMAIN (*Moll. France*, ii, p. 153) gives as synonyms :—*Helix Gesneri*, Hartm.; *H. pyrgia*, Bourg.; *H. segalaunica*, Sayn; *H. Edmondi*, Locard; and *H. promæca*, Bourg.]
- First recorded as British in 1666, by C. Merrett (*Pinax rer. Nat.*, p. 207).
- British Distribution in Time : Holocene and Recent.

## 2. *Helix* (s.s.) *aspersa*, Müller.

Etym. :—Lat. *aspersus* (or *adpersus*), sprinkled.

1774. *Helix aspersa* : MÜLLER, *Verm. Hist.*, ii, p. 59.
1777. *Helix hortensis* : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 136; 4to, p. 118, pl. lxxxiv, f. 129. [*Non H. hortensis*, Müller, 1774.]
1778. *Cochlea vulgaris* : DACOSTA, *Test. Brit.*, p. 72, pl. iv, f. 1.
1778. *Cornu copie* : BORN, *Index Mus. Vindobon.*, i, 8vo, p. 371; *Test. Mus. Vindobon.*, 1780, fol. p. 362, pl. xiii, f. 10 & 11. [Scalariform monstrosity.]
1789. *Helix lucorum* : RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 274. [*Non H. lucorum*, Linn., 1758.]
1791. *Helix aspersa*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3631, no. 58.
1791. *Helix grisea* [pars] : GMELIN, *t. c.*, p. 3649, no. 111.
1791. *Helix variegata* : GMELIN, *t. c.*, p. 3650, no. 190.
1791. *Serpula cornucopie* : GMELIN, *t. c.*, p. 3745, no. 25.
1799. *Helix lucorum* : PULTENEY, *Cat. Dorset.*, p. 48. [*Non Linné.*]
1801. *Helix aspersa* : DRAPARNAUD, *Tabl. Moll. France*, p. 76.
1803. *Cornucopia helicina* : SHAW & NODDER, *Nats. Miscell.*, xiv, pl. dlxviii. [Scalariform monstrosity.]
1803. *Helix aspersa*, Gmel. : MONTAGU, *Test. Brit.*, p. 407.
1805. *Helix aspersa*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 89, pl. v, f. 23.
1807. *Helix hortensis*, Pennant : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 208.
1813. *Helix hortensis* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 55, pl. xx, f. 1.
1817. *Helix grisea*, Linn. : DILLYWYN, *Cat. Shells*, ii, p. 943. [*Non Linné.*]

1819. *Helix aspersa*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 82.
1821. *Helix (Helicogena) aspersa*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 34 (June ed., p. 30); *Hist.*, pl. xviii, xix, xxiB, f. 6-7, xxiv, f. 3, xxivA, f. 1-7.
1823. *Helix aspersa* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 460.
1826. *Helix aspersa* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 63.
1827. *Helix aspersa*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxix, f. 5, 13, 17 & 18.
1827. *Helix adpersa* : WAARDENBERG, *Comment. Moll. Belg.*, p. 44. (Afterwards, *Ann. Acad. Lugd.-Bat.*, 1826-7 (1828), p. 44.)
1828. *Helix aspersa*, Müller : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 14, pl. v, f. 1.
1830. *Helix aspersa*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 328.
1831. *Helix aspersa*, Montagu : TURTON, *Manual*, p. 52, f. 35.
1837. *Helix (Pomatia) adpersa*, O. Müll! : BECK, *Index Moll.*, p. 44.
1837. *Helix (Pomatia) fluminensis*, Lang : BECK, *l. c.*
1837. *Cœnatoria aspersa*, Müller : HELD, *Isis*, xxx, hft. 12, col. 910.
- Ante } *Helix rufescens*, n. : COSTA, *Fauna Regno Napoli, Gast.*  
1839. } *Pulmon. Helix*, p. 19.
- Ante } *Helix secunda*, n. : COSTA, *l. c.*  
1839. }
1840. } *Helix (Acavus) aspersa*, Müller : GRAY, *Turton's Manual*,  
Apr. } new ed., p. 128, pl. iv, f. 35.
- Post } *Helix (Helicogena) aspersa*, Müller : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 43, pl. xvi, f. 5, 13,  
1840. } 17 & 18.
1845. *Helix (Helicogena) aspersa*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 55, pl. vi, f. 4-7; xxv, f. 5.
1847. *Acavus (Helix) adpersa* : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 171.
1848. *Helix aspera* : GISTEL, *Naturg. Thierreichs f. Schulen*, p. 166.
1850. *Helix (Pomatia) aspersa*, Müll. : ALBERS, *Heliceen*, p. 103.
1852. *Helix aspersa*, Müller : FORBES & HANLEY, *Brit. Moll.*, iv, p. 44, pl. cxvi, f. 1.
1852. *Helix aspersa*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 60.
1855. } *Helix (Pentatania) aspersa* : SCHMIDT, *Abhandl. Naturw.*  
Aug. } *Ver. Sachs.*, i, no. 1, p. 11.
1855. } *Helix (Cryptomphalus) aspersa*, Müll. : MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 174, pl. xiii, f. 14-32.
1857. *Helix (Acavus) aspersa*, Müller : GRAY, *Turton's Manual*, new ed., p. 103, pl. iv, f. 35.

1861. *Helix spumosa*, Lowe : LOWE, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. vii, p. 111.  
 1862. *Helix aspersa*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 181; v, pl. xi, f. 2.  
 1863. *Helix aspersa*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 59, figs.  
 1902. *Pomatia (Cryptomphalus) aspersa*, Müll. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 99.  
 1910. *Helix (Cryptomphalus) aspersa*, Müller : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 236, pl. xxiii & xxiv.

First recorded as British in 1666, by C. Merrett (*Pinax rerum nat.*, p. 207).

British Distribution in Time : Pleistocene to Recent.

### 3. *Helix (Cepæa) nemoralis*, Linné.

Etym. :—Lat. *nemoralis*, pertaining to groves or woods.

1758. *Helix nemoralis* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 773, no. 604.  
 1767. *Helix nemoralis* : LINNÆUS, *o. c.*, ed. 12, p. 1247, no. 691.  
 1767. *Cochlea nemoralis*, Linn. : GEOFFROY, *Traité Coq. Paris*, p. 30.  
 1774. *Helix nemoralis* : MÜLLER, *Verm. Hist.*, ii, p. 46. [*Non* p. 62, err. typ. for *nemorensis*.]  
 1777. *Helix nemoralis*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 137; 4to, p. 119, pl. lxxxv, [f. 131]. [Sometimes misquoted as *Viviparus*, juv.]  
 1778. *Cochlea fasciata* [pars] : DACOSTA, *Test. Brit.*, p. 76, pl. v, f. 1-3, 8, 14 & 19.  
 1791. *Helix nemoralis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3647.  
 1799. *Helix compactilis* : PULTENEY, *Cat. Dorset.*, p. 48.  
 1799. *Helix nemoralis* [pars] : PULTENEY, *l. c.*  
 1801, } *Helix hybrida* : POIRET, *Coq. Aisne*, p. 69.  
 Apr. } *Helix fusca* : POIRET, *o. c.*, p. 71.  
 [C. BOETTGER (*Zool. Jahrb.*, xlv, 1921, *Syst.*, p. 327) argues that this last belongs to *H. hortensis*.]  
 1801, } *Helix nemoralis* : DRAPARNAUD, *Tabl. Moll. France*,  
 July. } p. 80.  
 1802. *Helix turturum* : [STEWART], *Elem. Nat. Hist. Anim. Kingd.*, ii, p. 400. [*Non* Gmelin, 1791.]  
 1803. *Helix nemoralis*, Linn. : MONTAGU, *Test. Brit.*, p. 411.  
 1805. *Helix nemoralis*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 94, pl. vi, f. 3-5.  
 1807. *Helix nemoralis*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 206.  
 1813. *Helix nemoralis* [pars] : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 54, pl. xxi, f. 1-4, 8, 14 & 19.  
 1817. *Helix nemoralis*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 941.

1819. *Tachea nemoralis*, Linn.: LEACH, *Moll. Brit. Synop.* (proofs), p. 84.
1821. *Helix (Helicogena) Nemoralis*, Linné: FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 35 (June ed., p. 31); *Hist.*, pl. xxxiii & xxxiv.
1821. *Helix mutabilis*, var.  $\beta$ : HARTMANN, *Neue Alpina*, i, p. 242.
1821. *Helix nemoralis*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 27, pl. ii, f. 10 & 11.
1823. *Helix nemoralis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 460.
1823.  $\left. \begin{array}{l} \textit{Helix nemoralis} : \\ \textit{Helix cincta} , \textit{ mihi} : \\ \textit{Helix 5-fasciata} , \textit{ mihi} : \end{array} \right\}$  SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 163.
1826. *Helicogena nemoralis*, Linn.: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 60.
1826. *Helicogena libellula* (N): RISSO, *t. c.*, p. 62, pl. iii, f. 21.
1826. *Helicogena imperfecta* (N): RISSO, *t. c.*, p. 62.
1827. *Helix nemoralis*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxix, f. 1-4, 7-10. [Fig. 7 is wrongly ascribed to *H. hortensis*.]
1830. *Helix nemoralis*, Linn.: JEFFREYS, *Trans. Linn. Soc.* xvi, p. 329.
1831. *Helix nemoralis*, Linn.: TURTON, *Manual*, p. 33, f. 23.
1831. *Tachea nemoralis*: LEACH, *Turton's Manual*, p. 33, in synon.
1837. *Cepæa nemoralis*, Linn.: HELD, *Isis*, xxx, hft. 12, col. 910.
1840.  $\left. \begin{array}{l} \textit{Helix (Acavus) nemoralis} , \textit{ Linn.} : \textit{ GRAY} , \textit{ Turton's Manual} , \\ \textit{ Apr.} \left\{ \begin{array}{l} \textit{ new ed.} , \textit{ p. 132} , \textit{ pl. iii} , \textit{ f. 23.} \\ \textit{ Helix (Helicogena) nemoralis} , \textit{ Müller} : \textit{ BROWN} , \textit{ Illust.} \\ \textit{ Post} \left\{ \begin{array}{l} \textit{ Conch. Brit.} , \textit{ ed. 2} , \textit{ p. 43} , \textit{ pl. xvi} , \textit{ f. 1-4} , \textit{ 7-10.} \\ \textit{ Sept.} \left\{ \end{array} \right. \\ \textit{ 1840.} \left\{ \end{array} \right. \end{array} \right\}$
1843. (*Helix*) *Tachea lucifuga*, Ziegler: HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 191, pl. lxx, f. 1-3.
1845. *Helix (Helicogena) nemoralis*, Müller: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 56, pl. vi, f. 8-15; xxv, f. 2.
1846. *Helix genuensis*, Porro: PORRO, *Coll. Moll. Mediolan.*, Moll., p. 7. [*n. nud.*]
1847. *Acavus (Helicogena) nemoralis*: GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 171.
1848. *Helix etrusca*, Zgl. Mus.: PFEIFFER, *Mon. Helic. Vivent.*, i, p. 276. [*n. nud.* in synon.]
1850. *Helix (Archelix) nemoralis*, Linn.: ALBERS, *Heliceen*, p. 99.
1852. *Helix nemoralis*, Linnæus: FORBES & HANLEY, *Brit. Moll.*, iv, p. 53, pl. cxv, f. 1 & 4.
1852. *Tachea nemoralis*, Linn.: LEACH, *Moll. Brit. Synop.*, p. 61.

- 1855, } *Acavus (Tachea) nemoralis*, Linn. : H. & A. ADAMS,  
June. f } *Genera Moll.*, ii, p. 195.
- 1855, } *Helix (Pentatænia) nemoralis* : SCHMIDT, *Abhandl.*  
Aug. f } *Naturw. Ver. Sachs.*, i, no. 1, p. 11.
- 1855, } *Helix (Tachea) nemoralis*, Linn. : MOQUIN-TANDON, *Hist.*  
Sept. f } *Moll. France*, ii, p. 162, pl. xiii, f. 1-6.
1857. *Helix (Acavus) nemoralis*, Linn. : GRAY, Turton's  
*Manual*, new ed., p. 108, pl. iii, f. 23.
1862. *Helix nemoralis*, Linné : JEFFREYS, *Brit. Conch.*, i,  
p. 185; v, pl. xi, f. 3a.
1863. *Helix nemoralis*, Linnæus : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 64, figs.
1863. *Helix Sauveuri* : COLBEAU, *Ann. Soc. Malac. Belg.*, i,  
*Bull.*, p. xlii; *ib. Mém. Soc. Malac. Belg.*,  
iii, 1868, p. 98, pl. ii, f. 1. [C. Boettger  
(*Zool. Jahrb.*, xlv, 1921, *Syst.*, p. 328) argues  
that this is a form of *H. hortensis*.]
1910. *Helix (Cepæa) nemoralis*, Linné : TAYLOR, *Monog. Moll.*  
*Brit. Is.* [iii], p. 274, pl. xxvi.

[The most complete monograph on the banding of this species and *H. hortensis* in all its possible varieties is that by J. SAUVEUR, *Ann. Soc. Malac. Belg.*, ii, 1866-67, pp. 59-108, 3 pls.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, iv, p. 99, pl. ii, f. 3).

British Distribution in Time : Pliocene to Recent.

#### 4. *Helix (Cepæa) hortensis*, Müller.

Eym. :—Lat. *hortensis*, pertaining to a garden.

1774. *Helix hortensis* : MÜLLER, *Verm. Hist.*, ii, p. 52.
1778. *Cochlea fasciata* [pars] : DACOSTA, *Test. Brit.*, p. 76,  
pl. v, f. 4 & 5.
1791. *Helix hortensis* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i,  
pt. 6, p. 3649.
1798. *Pomatia hortensis* : BOLTEN, *Mus. Bolt.*, ii, p. 74,  
no. 946.
1798. *Pomatia arvensis* : BOLTEN, *t. c.*, p. 74, no. 947.
1798. *Pomatia nemorosa* : BOLTEN, *t. c.*, p. 74, no. 948.
1798. *Pomatia silvestris* : BOLTEN, *t. c.*, p. 74, no. 949.
1799. *Helix nemoralis* [pars] : PULTENEY, *Cat. Dorset.*, p. 48.
1801. *Helix hortensis* : DRAPARNAUD, *Tabl. Moll. France*,  
p. 81.
1803. *Helix hortensis*, Gmel. : MONTAGU, *Test. Brit.*, p. 412.
1805. *Helix hortensis*, Mull. : DRAPARNAUD, *Hist. Moll. France*,  
p. 95, pl. vi, f. 6
1807. *Helix nemoralis*,  $\delta$  : MATON & RACKETT, *Trans. Linn.*  
*Soc.*, viii, p. 207.

1813. *Helix nemoralis* [pars]: RACKETT, in Pulteney, *Cat. Dorsct.*, ed. 2, p. 54, pl. xxi, f. 5.
1817. *Helix nemoralis*, var. : DILLWYN, *Cat. Shells*, ii, p. 942.
1819. *Tachea hortensis*, Müll. : LEACH, *Moll. Brit. Synop.* (proofs), p. 85.
1821. *Helix (Helicogena) hortensis*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 35 (June ed., p. 31); *Hist.*, pl. xxxv, xxxvi, xxxixB, f. 2.
1821. *Helix mutabilis*, var.  $\alpha$  : HARTMANN, *Neue Alpina*, i, p. 242.
1821. *Helix hortensis*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 29, pl. ii, f. 12 & 13.
1826. *Helicogena nemoralis* [pars]: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 60.
1827. *Helix hortensis*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxxix, f. 11, 15 & 19. [Fig. 8 is wrongly ascribed to this species.]
1830. *Helix hortensis*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 330.
1831. *Helix hortensis*, Drap. : TURTON, *Manual*, p. 34, f. 24.
1831. *Tachea hortensis* : LEACH, in Turton, *Manual*, p. 34, in synon.
1837. *Helix subglobosa*, nobis : A. BINNEY, *Boston Journ. Nat. Hist.*, i, pt. 4, p. 485, pl. xvii.
1837. *Cepæa hortensis*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 910.
- 1840, } *Helix (Acavus) hortensis*, Müller : GRAY, Turton's *Manual*,  
Apr. } new ed., p. 130, pl. iii, f. 24.
- Post } *Helix (Helicogena) hortensis*, Lister : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 44, pl. xvi, f. 11, 15 & 19.
1840. } *Helix (Helicogena) hybrida*, Peèret [*i.e.* Poiret]: BROWN,  
o. c., p. 44, pl. xviii, f. 27 & 28.
1845. *Helix (Helicogena) hortensis*, Lister : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 57, pl. v, f. 19-21.
1845. *Helix (Helicogena) hybrida*, Peèret [*i.e.* Poiret]: BROWN, o. c., p. 58, pl. v, f. 23 & 24.
1846. *Helix canaria*, Pfeiff. C. in litt. : PORRO, *Coll. Mus. Mediolan.*, Moll., p. 5.
1850. *Acavus hortensis* : M. E. GRAY, *Fig. Moll. Anim.*, iv, pl. cxc, f. 10, explan.
1850. *Helix (Archelix) hortensis*, Müll. : ALBERS, *Heliceen*, p. 99.
1852. *Helix nemoralis*, Linnæus [pars]: FORBES & HANLEY, *Brit. Moll.*, iv, p. 53, pl. cxv, f. 2 & 3.
1852. *Tachea hortensis*, Müll. : LEACH, *Moll. Brit. Synop.*, p. 62.
- 1855, } *Acavus (Tachea) hortensis*, Müll. : H. & A. ADAMS, *Genera*  
June. } *Moll.*, ii, p. 195.
- 1855, } *Helix (Tachea) hortensis*, Müll. : MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 167, pl. xiii, f. 7-9.



1855. *Helix Ludoviciana*, D'Ann. in sched. : DROUËT, *Mém. Soc. R. Liège*, x, p. 176.
1857. *Helix (Acavus) hortensis*, Müller : GRAY, *Turton's Manual* new ed., p. 106, pl. iii, f. 24.
1862. *Helix nemoralis*, var. 1, *hortensis* : JEFFREYS, *Brit. Conch.*, i, p. 186; v, pl. xi, f. 3b.
1863. *Helix nemoralis* [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 64.
1863. *Helix Sauvouri*, J. Colb. : COLBEAU, *Ann. Soc. Malac. Belg.*, i, *Mém.* p. 66; *ib.* iii, 1868, *Mém.* p. 98, pl. ii, f. 1.
1871. *Helix (Pentatænia) hortensis*, Müll. : KOBELT, *Cat. Europ. Binnenconch.*, p. 16.
1911. *Helix (Cepæa) hortensis*, Müller : TAYLOR, *Monog. Moll. Brit. Is.* [iii], p. 326, pl. xxviii.

First recorded as British in 1678, by M. Lister (*Hist. Anim. Angl.*, p. 117 as a var. of *H. nemoralis*).

British Distribution in Time : Pleistocene to Recent.

[The record from the Red Crag is an error in determination.]

Genus : 14. **EUPARYPHA**, Hartmann.

Etym. :—Gr. *εὐπάρυφος*, having a handsome border.

Type :—*Helix pisana*, Müller.

(*Helix, Theba*, vett. auctt.)

1844. *Euparypha* : HARTMANN, *Gasterop.*, p. 204.

1. **Euparypha pisana**, Müller.

Etym. :—Lat. *Pisanus*, an inhabitant of Pisa.

1774. *Helix pisana* : MÜLLER, *Verm. Hist.*, ii, p. 60.
1777. *Helix zonaria*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, Svo, p. 137; 4to, p. 119, pl. lxxxv, f. 133. [Non Linné.]
1791. *Helix pisana*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3631.
- ?1792. *Helix petholata*, nobis : OLIVI, *Zool. Adriat.*, p. 178.
1797. *Helix maculosa* : MATON, *Observ. Nat. Hist. Western Counties England*, i, p. 227. [Non Gmelin, 1791.]
1801. *Helix rhodostoma* : DRAPARNAUD, *Tabl. Moll. France*, p. 74.
1803. *Helix cingenda* : MONTAGU, *Test. Brit.*, p. 418, Suppt., pl. xxiv, f. 4.
1805. *Helix rhodostoma* : DRAPARNAUD, *Hist. Moll. France*, p. 86, pl. v, f. 14 & 15.

1807. *Helix cingenda*, Montagu : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 195.
1813. *Helix cingenda* : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 53, pl. xviii, f. 5.
1817. *Helix strigata*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 911. [Non Müller.]
1819. *Theba cingenda*, Mont. : LEACH, *Moll. Brit. Synop.* (proofs), p. 92.
1821. *Helix (Helicella) pisana*, Muller : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 49 (June ed., p. 45).
1823. *Helix strigata* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 459.
1826. *Theba pisana* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 73.
1826. *Theba lucostoma* : RISSO, *t. c.*, p. 76. [Teste Bourguignat and Caziot.]
1827. *Helix cingenda*, Mont. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xl, f. 27 [29, 32] 33, 35 [36, 38] & 58.
1828. *Carocolla maculata*, m. : MENKE, *Synop. Moll.*, p. 14. [Teste Moquin-Tandon.]
1830. *Helix cingenda*, Mont. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 333.
1831. *Helix cingenda*, Montagu : TURTON, *Manual*, p. 39, f. 30.
1831. *Theba cingenda* : LEACH, in Turton, *Manual*, p. 39, in synon.
1837. *Helix (Theba) pisana*, O. Müll! : BECK, *Index Moll.*, p. 14.
1837. *Helix alboranensis*, Web. et Bth. : BECK, *o. c.*, p. 15, in synon.
1837. *Xerophila pisana*, Müll. : HELD, *Isis*, xxx, hft. 12, col. 913.
1838. *Helix (Cernuella) pisana*, m. (Müll.) : SCHLÜTER, *Kurz. syst. Verzeichn.*, p. 6.
1839. *Helix damascena*, Parr. [MS.] : ANTON, *Verz. Conch.*, p. 37. [*n. nud.*]
- 1840, } *Helix (Heliomanes) pisana*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 158, pl. iv, f. 30.
- Post } *Helix (Heliomanes) pisana*, Müller : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 50, pl. xvii, f. 27, 29,  
1840. } 32, 35, 36, 38 & 58.
1844. *Euparypha rhodostoma* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 204, pl. lxxix & lxxx.
1845. *Helix (Heliomanes) pisana*, Müller : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 75, pl. viii, f. 8-15.
1847. *Helix lincolata*, Ch. : NARDO, *Sinou. Specie Chiareghini*, col. 89.
1847. *Helix Silis*, Ch. : NARDO, *o. c.*, col. 89.
1847. *Helix Eridanea*, Ch. : NARDO, *o. c.*, col. 91.
1847. *Helix Porrina*, Ch. : NARDO, *o. c.*, col. 91.
1848. *Helix sardoa*, Zgl. : PFEIFFER, *Mon. Helic. Vivent.*, i, p. 153, in synon.
1848. *Helix albina*, Zgl. : PFEIFFER, *l. c.*

1850. *Helix (Xerophila) pisana*, Müll. : ALBERS, *Heliceen*, p. 74.  
 1852. *Helix pisana*, Müller : FORBES & HANLEY, *Brit. Moll.*,  
 iv, p. 56, pl. exv, f. 7 & 8.  
 1852. *Teba cingenda*, Montagu : LEACH, *Moll. Brit. Synop.*,  
 p. 67.  
 1856. *Helix (Heliomane) pisana*, Müll. : MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 259, pl. xix, f. 9-20.  
 1857. *Helix (Helimanes) pisana*, Müller : GRAY, *Turton's*  
*Manual*, new ed., p. 120, pl. iv, f. 30.  
 1860. *Helix (Euparypha) pisana*, Müll. : MARTENS, in Albers,  
*Heliceen*, ed. 2, p. 130.  
 1862. *Helix Pisana*, Müller : JEFFREYS, *Brit. Conch.*, i, p. 207 ;  
 v, pl. xiii, f. 1.  
 1863. *Helix Pisana*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*,  
 p. 68, figs.  
 1902. *Euparypha pisana*, Lin. [sic] : WESTERLUND, *Rad*  
*Jugoslav. Akad.*, cli, p. 100.  
 1911. *Helix (Euparypha) pisana*, Müller : TAYLOR, *Monog.*  
*Moll. Brit. Is.* [iii], p. 368, pl. xxx & xxxi.

[GERMAIN (*Moll. France*, ii, p. 158) gives as synonyms :—  
*Helix pisanella*, Servain ; *H. Cuttati*, Bourg. ; *H.*  
*carpiensis*, Letourn. & Bourg. ; *H. Bertini*, Servain ;  
*H. catocyphia*, Bourg. ; and *H. hyperplatea*, Servain.]  
 First recorded as British in 1777, by T. Pennant, as  
*Helix zonaria*. (See ref. above.)  
 British Distribution in Time : Recent.

Family : CLAUSILIIDÆ.<sup>1</sup>

(Sub-fam. : CLAUSILIINÆ.)

Genus : 1. **BALEA**, Gray.

Etym. :—Unknown. Hardly likely to be from the Gr. βαλιός,  
 variegated ; or, as suggested by Jeffreys (*Brit. Conch.*, i,  
 p. 272) from Lat. *balius* pro *badius*, bay-coloured.

Type :—*Turbo peregrinus*, Linn. (Selected by both Herrmannsen  
 and Gray.)

(*Turbo*, *Helix*, *Strombiformis*, *Bulimus*, *Pupa*, *Clausilia*, etc.,  
 vett. auctt.)

1819. *Balæa* : LEACH, *Moll. Brit. Synop.* (proofs), p. 115.

1824. *Balea*, Prideaux MS. : GRAY, *Zool. Journ.*, i, p. 61.

1831. *Balæa* : TURTON, *Manual*, p. 87.

1833. *Fusulus* [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii,  
 p. 105.

<sup>1</sup> For latest classification, See LINDHOLM, *Proc. Malac. Soc. Lond.*, vi,  
 1924, pp. 53-80 ; 1925, pp. 261-66.

1840. *Eruca* [pars]: { subgg. of } SWAINSON, *Treat. Malac.*,  
 1840. *Balia* [pars]: { *Clausilia* } p. 334.  
 1850. *Bolæa*: DYSON, *Shells of Manchester*, p. 60.  
 1855. *Baleastra*, subg. of *Balea*: PFEIFFER, *Malak. Blätt.*,  
 ii, p. 179.

### 1. *Balea perversa* (Linné).

Etym.:—Lat. *perversus*, turned the wrong way.

1758. *Turbo perversus*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 767,  
 no. 567.  
 1767. *Turbo perversus*: LINNÆUS, *o. c.*, ed. 12, p. 1240, no. 650.  
 1774. *Helix perversa* [pars ?]: MÜLLER, *Verm. Hist.*, ii, p. 118.  
 1777. *Turbo perversus*, Linn.: PENNANT, *Brit. Zool.*, ed. 4,  
 iv, 8vo, p. 130; 4to, p. 113, pl. lxxxii, f. 116.  
 ?1778. *Strombiformis perversus*: DACOSTA, *Test. Brit.*, p. 107.  
 1791. *Turbo perversus* [pars]: GMELIN, *Linn. Syst. Nat.*, ed. 13,  
 i, pt. 6, p. 3609, no. 88.  
 1792. *Bulimus perversus*, nob. [pars]: BRUGUIÈRE, *Ency.*  
*méthod.*, Vers, i, p. 351.  
 1799. *Turbo perversus*: PULTENEY, *Cat. Dorset.*, p. 46.  
 1801. *Pupa fragilis*: DRAPARNAUD, *Tabl. Moll. France*, p. 64.  
 1803. *Turbo perversus*: Lin.: MONTAGU, *Test. Brit.*, p. 355,  
 pl. xi, f. 12.  
 1805. *Pupa fragilis*: DRAPARNAUD, *Hist. Moll. France*, p. 68,  
 pl. iv, f. 4.  
 1807. *Clausilia fragilis*, Drap.: FÉRUSSAC, *Essai méthod.*  
*Conchyl.*, p. 51.  
 1807. *Turbo perversus*, Linn.: MATON & RACKETT, *Trans. Linn.*  
*Soc.*, viii, p. 181, pl. v, f. 2.  
 1813. *Clausilia parvula*, Stud. in litt.: GÄRTNER, *Ann.*  
*Wetterau. Gesell. Naturk.*, iii, hft. 2, p. 302.  
 1813? *Odostomia perversa*: FLEMING, *Edinb. Ency.*, vii, p. 76.  
 1813. *Turbo perversus*: RACKETT, in Pulteney, *Cat. Dorset.*,  
 ed. 2, p. 51, pl. xix, f. 11.  
 1817. *Turbo perversus*, Linn.: DILLWYN, *Cat. Shells*, ii, p. 876.  
 1818. *Clausilia perversa*: FLEMING, Suppt. 4–6th ed. *Ency. Brit.*,  
 iii, p. 312.  
 1819. *Balæa fragilis*, Drap.: LEACH, *Moll. Brit. Synop.* (proofs),  
 p. 116.  
 1820. *Helix (Clausilia) fragilis*, Drap.: FÉRUSSAC, *Journ.*  
*Physique*, xc, p. 300.  
 1821. *Helix (Cochlodina) perversa*, Linné: FÉRUSSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 66 (June ed.,  
 p. 62).  
 1821. *Clausilia fragilis*, Drap.: HARTMANN, *Neue Alpina*, i,  
 p. 215.  
 1821. *Pupa fragilis*, Drap.: C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 56, pl. iii, f. 16.

1823. *Turbo perversus*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 456.
1824. *Balea fragilis*: GRAY, *Zool. Journ.*, i, p. 61.  
[Cites in synonymy "*Balea lucifuga*, Leach MS."]
1827. *Clausilia perversa*, Pfeiffer: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 11.
1828. *Balea perversa*: FLEMING, *Brit. Anim.*, p. 271.
1830. *Balea fragilis*, Drap.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 351.
1831. *Balea fragilis*, Drap.: TURTON, *Manual*, p. 87, f. 70.
1833. *Fusulus fragilis*, mihi: FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 105.
1837. *Clausilia (Balea) perversa* (L.) Fl.: BECK, *Index Moll.*, i, p. 89.
1838. *Pupa perversa*, Linn.: POTIEZ & MICHAUD, *Gall. Moll.*, i, p. 166.
- 1840, } *Balea perversa*, Montagu: GRAY, *Turton's Manual*,  
Apr. } new ed., p. 207, pl. vi, f. 70.
- 1840, } *Clausilia (Eruca) fragilis*, Drap.: SWAINSON, *Treat.*  
May. } *Malac.*, p. 334.
- 1840, } *Clausilia (Balia) Fragilis*, Drap.: SWAINSON, *l. c.*  
May. }
- 1840, } *Clausilia uniplicata*, nobis: CALCARA, *Effem. Scient.*  
July. } *Sicil.*, xxx, p. 35.
- Post } *Balea fragilis*, Leach: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 37, pl. xiv, f. 11.
1840. }
- \*1843. *Stomodonta fragilis*, nob.: MERMET, *Moll. Pyrénées occid.*, p. 48.
1845. *Balea fragilis*, Leach: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 36, pl. iv, f. 30.
1850. *Balea perversa* (Fleming): DYSON, *Shells of Manchester*, p. 60.
- 1852, } *Balea fragilis*, Drap.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 83.
- 1852, } *Balea fragilis*, Draparnaud: FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 114, pl. cxxviii, f. 8 & 9.
1855. *Balea (Baleastra) perversa*, L.: PFEIFFER, *Malak. Blätt.*, ii, p. 179.
1856. *Pupa (Balea) perversa*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 349, pl. xxv, f. 6-14.
- 1857, } *Balea perversa*, Linn.: GRAY, *Turton's Manual*, new ed.,  
Sept. } p. 176, pl. vi, f. 70.
- 1857, } *Balia perversa*: BOURGUIGNAT, *Rev. & Mag. Zool.*,  
Dec. } Sér. II, tom. ix, p. 550, pl. xvii, f. 1-3.  
(Also in *Aménit. Malac.*, ii, p. 68, pl. xiii, f. 1-3.)
1858. *Balea nitida*, MSS. (H.): MOUSSON, *Vierteljahrschr. Gesell. Zürich*, 1858, p. 168.

1862. *Balia perversa*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 273; v, pl. xvii, f. 1.  
 1863. *Balea perversa*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 106, figs.

[GERMAIN (*Moll. France*, p. 191) cites as synonyms:—*Balea pyrenaica*, Bourguignat; *B. Rayi*, Bourguignat.]

First recorded as British in 1674, by M. Lister (*Phil. Trans.* ix, p. 99, pl. ii, f. 11).

British Distribution in Time: Pleistocene to Recent.

## Genus: 2. LACINIARIA, Hartmann.

Etym. :—Lat. *lacinia*, a lappet or fold.

Type :—*Clausilia plicata*, Draparnaud.

(*Strombiformis*, *Turbo*, *Odostomia*, *Helix*, *Clausilia*, vett. auctt.)

1840. *Iphigenia*, subg. of *Clausilia* [pars]: GRAY, in Turton's *Manual*, new ed., p. 214.  
 1844. *Laciniaria*, subg. of *Clausilia*: HARTMANN, *Erd- & Süssw.-Gasterop.*, p. 216.  
 \*1851. *Macrogastrea*, Hartmann, subg. of *Clausilia*: STROBEL, *Malac. Ungherese*, p. 28. [*Teste* Clessin, *Nomencl. Helic. viv. Pfeiff.*, p. 398.] [*Non* Hartmann, 1840 = *Clausilia (Iphigena)*.]  
 1855. *Alinda*, subg. of *Clausilia*: H. & A. ADAMS, *Genera Moll.*, ii, p. 182.  
 1924. *Laciniaria* [as a genus]: LINDHOLM, *Proc. Malac. Soc. Lond.*, xvi, p. 64.

### 1. *Laciniaria biplicata* (Montagu).

Etym. :—Lat. *biplicatus*, having two folds.

- ?1778. *Strombiformis perversus* [pars]: DACOSTA, *Test. Brit.*, p. 107.  
 1803. *Turbo biplicatus*: MONTAGU, *Test. Brit.*, p. 361, pl. xi, f. 5.  
 1807. *Turbo biplicatus*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 179.  
 1813? *Odostomia biplicata*: FLEMING, *Edinb. Ency.*, vii, p. 77.  
 1813. *Clausilia plicata*, Drap.: GÄRTNER, *Ann. Wetterau. Gesell. Naturk.*, iii, hft. 2, p. 302. [*Non* Draparnaud.]  
 1817. *Turbo biplicatus*, Mont.: DILLWYN, *Cat. Shells*, ii, p. 874.  
 1819. *Clausilia biplicata*, Mont.: LEACH, *Moll. Brit. Synop.* (proofs), p. 120.  
 1820. *Helix (Clausilia) ventricosa*, Flem.: FÉRUSSAC, *Journ. Physique*, xc, p. 300.



1821. *Helix (Cochlodina) ventriculosa*, nobis, var.  $\alpha$ : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 67 (June ed., p. 63).
1821. *Helix (Cochlodina) similis*, Charpentier: FÉRUSSAC, *l. c.* [Fide Pfeiffer, *Mon. Helic. viv.*, ii, 1848, p. 470.]
1821. *Clausilia biplicata*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 61, pl. iii, f. 27.
1821. *Clausilia perversa*: C. PFEIFFER, *t. c.*, p. 63, pl. iii, f. 28.
1821. *Clausilia ventricosa*, Drap.: C. PFEIFFER, *t. c.*, p. 63, pl. iii, f. 29. [Non Draparnaud.]
1823. *Turbo biplicatus*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 456.
1825. *Clausilia Montagu*: GRAY, *Ann. Phil.*, xxv (N.S. ix), p. 413.
1827. *Clausilia biplicata*, Brown's MSS.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 13.
1830. *Clausilia ventricosa*, Drap.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 354. [Non Draparnaud.]
1833. *Clausilia similis*, Charp. [MS.]: ROSSMÄSSLER, *Icon.*, i, p. 77, f. 30.
- 1837, } *Clausilia vivipara* [n. nov.]: HELD, *Isis*, xxx, hft. 4,  
Apr. } col. 308.
- 1837, } *Clausilia ventricosa*, Drap.: ALDER, *Mag. Zool. Bot.*, ii,  
Aug. } p. 110. [Non Draparnaud.]
- 1840, } *Clausilia (Iphigenia) biplicata*, Montagu: GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 214, pl. v, f. 55.
- Post } *Clausilia biplicata*, Leach: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 38, pl. xiv, f. 13.  
1840. }
1845. *Clausilia biplicata*, Leach: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 39, pl. iv, f. 35 & 36.
1848. *Laciniaria similis*, Htm. in Sched. : } PFEIFFER,  
1848. *Clausilia sordida*, Ziegl. MS. : } *Mon. Helic.*  
1848. *Clausilia Scherzenbachii*, Parr. in Sched. : } *viv.*, ii,  
p. 470, in synonym.
- 1852, } *Clausilia biplicata*, Mont.: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 86.
- 1852, } *Clausilia biplicata*, Montagu: FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 118, pl. cxxix, f. 4.
1855. *Clausilia (Alinda) biplicata*, Mont.: H. & A. ADAMS, *Genera Moll.*, ii, p. 182.
1856. *Clausilia (Iphigenia) biplicata*, Mont.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 337, pl. xxiv, f. 11 & 12.
1857. *Clausilia (Iphigenia) biplicata*, Mont.: GRAY, *Turton's Manual*, new ed., p. 184, pl. v, f. 55.
1862. *Clausilia biplicata*, Montagu: JEFFREYS, *Brit. Conch.*, i, p. 283; v, pl. xvii, f. 4.

1863. *Clausilia biplicata*, Montagu : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 101, figs.

[FORBES & HANLEY (*Brit. Moll.*, iv, p. 119) cite as synonyms the following species of F. Forster (*Nova Acta Acad. Cæs. Leop.-Carol.*, xix, pt. 2, 1842, pp. 269–275, pl. lviii, f. 1–6) :—*Cl. cordata*, *vulnerata*, *infulæformis*, *radicans*, *rostrata* and *quadrata*.]

First recorded as British in 1803, by G. Montagu, as *Turbo biplicatus*. (See ref. above.)

British Distribution in Time : Holocene and Recent.

Genus : 3. **CLAUSILIA**, Draparnaud.

Etym. :—Lat. *clausus*, closed.

Type :—*Turbo bidens*, Montagu = *Cl. rugosa*, Draparnaud. (Selected by Turton in 1831. Children's selection in 1823 of *Bulimus torticollis*, Olivier, as type is not admissible, since that species was not one of those named when the genus was founded.)

(*Helix*, *Turbo*, *Strombiformis*, *Bulimus*, *Cerion*, *Pupa*, vett. auctt.)

1805. *Clausilia* : DRAPARNAUD, *Hist. Moll. France*, p. 68.  
 1813? *Odostomia* [pars] : FLEMING, *Edinb. Ency.*, vii, p. 76.  
 1815. *Volvulus* [pars] : OKEN, *Lehrb. Naturg.*, iii, abt. 1, p. 313.  
 1821. *Clauselia* [sic : pars] : GRAY, *Lond. Med. Repos.*, xv, p. 239.  
 1821. *Iphigena*, subg. of *Clausilia* : GRAY, *t. c.*, p. 239. [*Non* Schumacher, 1817 (*Pelecyp.*).]  
 1835. *Clausilea* [sic] : SWAINSON, *Elem. Conch.*, p. 11.  
 1840. *Iphigenia*, subg. of *Clausilia* [pars] : GRAY, in Turton's *Manual*, new ed., p. 214.  
 1840. *Macrogastra* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 48. [*Non* *Macrogaster*, Thunb., 1805.]  
 \*1843. *Stomodonta* [pars] : MERMET, *Hist. Moll. Pyrénées occid.*, p. 45.  
 1844. *Plicaphora*, subg. of *Clausilia* : HARTMANN, *Erd- & Süßw.-Gasterop.*, p. 216.  
 1848. *Andræa*, Hartmann in sched. : PFEIFFER, *Mon. Helic. vic.*, ii, p. 476, in synon.  
 1867. *Pyrostoma*, subg. of *Clausilia* : VEST, *Verhandl. Siebenb. Ver. Naturw.*, xviii, p. 192.  
 1867. *Trigonostoma* : VEST, *t. c.*, p. 193. [*Non* Blainville, 1825; *nec* Fitzinger, 1833.]  
 \*1869. *Pseudocerva*, Schaufuss : PAETEL, *Cataloge*, p. 15. [*Fide* *Zool. Rec.*, 1869, *Moll.*, p. 573.]  
 1870. *Kuzmicia*, Brus., subg. of *Clausilia* : BRUSINA, *Contrib. Malac. Croatie*, p. 24.

1870. *Erjavicia*, Brus., subg. of *Clausilia*: BRUSINA, *l. c.*  
 1873. *Pirostoma*, Vest [em.]: MÖLLENDORFF, *Beitr. Fauna Bosniens*, p. 45.  
 1901. *Peristoma* [err. typ.]: WESTERLUND, *Mém. Acad. Sci. St. Pétersb.*, xi, no. 11, p. 6. [*Non* Krynicki, 1883.]  
 1904. *Cusmicia*, Brusina, subg. of *Clausilia*: KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 135.  
 1923. *Erjavicia* [err. typ.], Brusina: KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xv, p. 305.

1. *Clausilia rugosa*, Draparnaud.<sup>1</sup>

Etym.:—Lat. *rugosus*, wrinkled.

- ?1765. *Turbo bidentatus*: STRÖM, *Trondheim Selsk. Skrifter*, iii, p. 436, pl. vi, f. 17. [Identification impossible: his species might equally be intended for *Cl. parvula*.]  
 1774. *Helix perversa* [pars]: MÜLLER, *Verm. Hist.*, ii, p. 118.  
 ?1778. *Strombiformis perversus* [pars]: DACOSTA, *Test. Brit.*, p. 107, pl. v, f. 15.  
 1791. *Turbo perversus*, Müll. [pars]: GMELIN, *Linn. Syst. Nat.* ed. 13, i, pt. 6, p. 3609.  
 1792. *Bulimus perversus*, nob. [pars]: BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 351.  
 1801. *Pupa rugosa*: DRAPARNAUD, *Tabl. Moll. France*, p. 63.  
 1803. *Turbo bidens*, Lin.: MONTAGU, *Test. Brit.*, p. 357, pl. xi, f. 7. [*Non* Linné.]  
 [According to Montagu (*Test. Brit.*, Suppt., p. 131) this species occurred in the Portland Collection under the title of *Turbo nigricans*.]  
 1805. *Clausilia rugosa*: DRAPARNAUD, *Hist. Moll. France*, p. 73, pl. iv, f. 19 & 20.  
 1807. *Turbo nigricans*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 180.  
 [The citation by Maton and Rackett, in their synonymy of this species, of "Pulteney in Hutch. Dorset." refers to the second edition of 1813, then in preparation, and not to that of 1799 in which no reference to this species occurs.]  
 1808. *Turbo nigricans*: MONTAGU, *Test. Brit.*, Suppt., p. 131.  
 1812. *Turbo controversus*, mihi: ALTEN, *Syst. Abhandl. Erd- & Flussconch. Augsburg*, p. 18, pl. ii, f. 3.  
 1813. *Turbo nigricans*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 51, pl. xix, f. 10.

<sup>1</sup> That this specific name should be used instead of *bidentata*, Ström (spec. indet.), See KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1920, p. 84; xv, 1923, p. 298.

- 1813? *Odostomia nigricans* : FLEMING, *Edinb. Ency.*, vii, p. 76.  
 1815. *Volvulus perversus* : OKEN, *Lehrb. Naturg.*, iii, abt. 1, p. 313.  
 1817. *Turbo nigricans*, Pult. : DILLWYN, *Cat. Shells*, ii, p. 875.  
 1819. *Clausilia rugosa*, Drap. : LEACH, *Moll. Brit. Synop.* (proofs), p. 121.  
 1820. *Helix (Clausilia) rugosa*, Flem. : FÉRUSSAC, *Journ. Physique*, xc, p. 301.  
 1821. *Helix (Cochlodonta) rugosa*, Draparnaud : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 67 (June ed., p. 63).  
 1821. *Clausilia rugosa*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 63, pl. iii, f. 30.  
 1821. *Clausilia gracilis* : C. PFEIFFER, *t. c.*, p. 65, pl. iii, f. 32.  
 1822. *Turbo Everetti*, nobis : MILLER, *Ann. Phil.*, N.S. iii, p. 377.  
 1826, }  
 Apr. } *Clausilia parvula* : TURTON, *Zool. Journ.*, ii, p. 566.  
 ?1826, }  
 Nov. } *Clausilia Marcellia* (N) : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 86. [*Teste Bourguignat.*]  
 1827. *Clausilia rugosa*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 14.  
 1830. *Clausilia nigricans*, Pult. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 351.  
 1831. *Clausilia rugosa*, Drap. : TURTON, *Manual*, p. 74, f. 58.  
 1831. *Clausilia parvula*, Turton : TURTON, *o. c.*, p. 75, f. 59.  
 1838. *Clausilia crassula* : POTIEZ & MICHAUD, *Gall. Moll.*, i, p. 180, pl. xviii, f. 9 & 10. [*Teste Pfeiffer.*]  
 1840, }  
 Apr. } *Clausilia (Iphigenia) nigricans*, Dillw. : GRAY, *Turton's Manual*, new ed., p. 217, pl. v, f. 58 [& 59].  
 Post }  
 Sept. } *Clausilia rugosa*, Draparnaud : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 38, pl. xiv, f. 14.  
 1840. }  
 \*1843. *Stomodonta rugosa*, nob. : MERMET, *Hist. Moll. Pyrénées occid.*, p. 47.  
 1845. *Clausilia rugosa*, Draparnaud : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 40, pl. iv, f. 37 & 38.  
 1850. *Clausilia Reboudii* : DUPUY, *Hist. Nat. Moll. France*, p. 356, pl. xviii, f. 3 & 4.  
 1852, }  
 Feb. } *Clausilia rugosa*, Drap. : LEACH, *Moll. Brit. Synop.*, p. 87.  
 1852, }  
 Apr. } *Clausilia nigricans*, Maton & Rackett : FORBES & HANLEY, *Brit. Moll.*, iv, p. 121, pl. cxxix, f. 1.  
 1853. *Clausilia trivialis*, Parr. in Sched. : PFEIFFER, *Mon. Helic. viv.*, iii, p. 616.  
 1853. *Clausilia didyma*, Parr. in Sched. : PFEIFFER, *t. c.*, p. 617.  
 1855. *Clausilia (Andrwa) rugosa*, Drap. : H. & A. ADAMS, *Genera Moll.*, ii, p. 181.

1856. *Clausilia (Iphigena) perversa*, Müll. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 332, pl. xxiv, f. 21-27.
1857. *Clausilia (Iphigenia) nigricans*, Maton & Rackett : GRAY, *Turton's Manual*, new ed., p. 186, pl. v, f. 58 & 59.
1860. *Clausilia (Iphigenia) rugosa*, Dr. : MARTENS, *Albers, Heliceen*, ed. 2, p. 283.
1862. *Clausilia rugosa*, Draparnaud : JEFFREYS, *Brit. Conch.*, i, p. 278 ; v, pl. xvii, f. 2 a-c.
1863. *Clausilia perversa*, Müller : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 103, figs.
1877. *Clausilia (Pyrostoma) nigricans*, Pulteney : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 264, f. 145.
1881. *Clausilia (Pirostoma) bidentata*, Ström : KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 106.
1881. *Clausilia (Pirostoma) bidentata*, var. *rugosa*, Drap. : KOBELT, *l. c.*
- 1884, } *Clausilia (Kuzmicia) bidentata*, Ström : WESTERLUND,  
May. f } *Fauna Paläarct. Region*, iv, p. 187.
- 1884, } *Clausilia (Kuzmicia) rugosa*, Drp. : WESTERLUND, *l. c.*,  
May. f } p. 188.
1884. *Clausilia (Pyrostoma) bidentata*, Ström : CLESSIN, *Deutsch. Excur. Moll. Fauna*, ed. 2, p. 306, f. 172.
1904. *Clausilia (Cusmicia) bidentata*, Ström : KOBELT, *Rossmässler, Icon.*, N.F. xi, p. 234.
1904. *Clausilia (Cusmicia) rugosa*, Drap. : KOBELT, *l. c.*
- [GERMAIN (*Moll. France*, ii, p. 203) gives as synonyms :—  
*Cl. velaviana*, Bourg. ; *Cl. lamalouensis*, Bourg. ;  
*Cl. pleurasthena*, Bourg. ; *Cl. arrosta*, Bourg. ; and  
*Cl. nantuacina*, Bourg.  
According to WESTERLUND, the *Balia Sarsi*, Bourg., is  
the young of this species.]  
First recorded as British in 1674, by M. Lister (*Phil.  
Trans.*, ix, p. 99, pl. ii, f. 10).  
British Distribution in Time : Cromerian to Recent.

## 2. *Clausilia dubia*, Draparnaud.

Etym. :—Lat. *dubius*, doubtful.

[This species has generally been confused with *Cl. rugosa*, Drap.]

1805. *Clausilia dubia* : DRAPARNAUD, *Hist. Moll. France*, p. 70, pl. iv, f. 10.
1820. *Clausilia roseida*, mihi : } STUDER, *Naturw. Anz.*
1820. *Clausilia cruciata*, mihi : } *Schweiz. Gesell.*, iii, p. 89.  
(In reprint, "Syst. Verzeichn.," p. 20.)
1821. *Helix (Cochlodina) dubia*, Drap. : } FÉRUSAC, *Tabl.*
1821. *Helix (Cochlodina) cruciata*, Venetz : } *syst. Limaçons*,  
Jan. ed., p. 67 (June ed., p. 63).

1821. *Clausilia plicatula*, var.  $\alpha$ : HARTMANN, *Neue Alpina*, i, p. 216.
1821. *Clausilia obtusa*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 65, pl. iii, f. 33 & 34. [A. Schmidt, *Syst. Europ. Clausilien*, 1868, p. 133, from an inspection of the type refers Pfeiffer's species to *nigricans*, Pult.
- 1840, } *Clausilia (Iphigenia) dubia*, Drap.: GRAY, *Turton's*  
Apr. } *Manual*, new ed., p. 216, pl. xii, f. 143.
- 1840, } *Clausilia similis*, Gilbertson MSS. B.M. not Fér.: GRAY,  
Apr. } *o. c.*, p. 216.
- Post }  
Sept. } *Clausilia dubia*, Drapernaud: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 39, pl. xviii, f. 32.
1845. *Clausilia dubia*, Drapernaud: BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 41, pl. iv, f. 41 & 42.
1848. *Andraea dubia*, Hartm. in Sched.: PFEIFFER, *Mon.*  
*Helic. viv.*, ii, pp. 476 & 538.
1850. *Clausilia abietina*: DUPUY, *Hist. Nat. Moll. France*,  
p. 358, pl. xvii, f. 5.
1852. *Clausilia nigricans*, var. *dubia*: FORBES & HANLEY,  
*Brit. Moll.*, iv, p. 121, pl. cxxix, f. 2.
1855. *Clausilia (Andraea) dubia*, Drap.: H. & A. ADAMS,  
*Genera Moll.*, ii, p. 181.
1856. *Clausilia (Iphigenia) nigricans*,  $\alpha$ : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 334, pl. xxix, f. 17-20.
1857. *Clausilia (Iphigenia) nigricans*, var. 3: GRAY, *Turton's*  
*Manual*, new ed., p. 187, pl. xii, f. 143.
1862. *Clausilia rugosa*, var. 5 *dubia*: JEFFREYS, *Brit. Conch.*,  
i, p. 279; v, pl. xvii, f. 2 d, c.
1870. *Clausilia (Kuzmicia) dubia*, Drap.: BRUSINA, *Contrib.*  
*Malac. Croatie*, p. 24.
1877. *Clausilia (Pyrostoma) dubia*, Drapernaud: CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, p. 260, f. 144.
1881. *Clausilia (Pyrostoma) dubia*, Drap.: KOBELT, *Cat. Europ.*  
*Binnenconch.*, ed. 2, p. 106.
1904. *Clausilia (Cusmicia) dubia*, Drap.: KOBELT, in ROSS-  
mässler, *Icon.*, N.F. xi, p. 234.

[GERMAIN (*Moll. France*, ii, p. 200) gives as synonyms:—  
*Cl. gallica*, Bourg.; *Cl. Fagoti*, Bourg.; *Cl. Dupuyi*,  
Bourg.; *Cl. Farinesi*, Fagot; *Cl. queyrasiana*,  
Coutagne; *Cl. nansoutyana*, Cout.; and *Cl. ennychia*,  
Bourg.]

First recorded as British in 1830, by J. Alder (*Trans.*  
*Nat. Hist. Soc. Northumberl.*, i, p. 32), as var of  
*Cl. rugosa*, Drap.

British Distribution in Time: Pleistocene to Recent.



3. †*Clausilia parvula*, (Studer) Férussac.

Etym. :—Lat. dimin. of *parvus*, small.

1789. *Helix parvula* : STUDER, *Coxe's Trav. in Switzerld.*, iii p. 431. [*n. nud.*]
1805. *Clausilia rugosa*, var.  $\beta$  : DRAPARNAUD, *Hist. Moll. France*, p. 73. [*Teste Férussac.*]
1807. *Clausilia parvula* [Studer] Fér. : FÉRUSSAC, *Essai Conchyl.*, p. 111 & Table pp. 122–3. [This stands on the ground that Draparnaud's *Cl. rugosa*, var.  $\beta$ , which is properly defined, is identical with Studer's *Helix parvula*.]
1807. *Turbo crustatus*, mihi : G. L. HARTMANN, *Alpina*, ii, p. 211. [*Teste J. D. W. Hartmann, Neue Alpina*, i, p. 261.]
1820. *Clausilia parvula*, mihi : STUDER, *Naturw. Anz. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," p. 20.) [*n. nud.*]
1821. *Helix (Cochlodonta) parvula*, Studer : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 67 (June ed., p. 63.) [*n. nud.*]
1821. *Clausilia minima* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 66, pl. iii, f. 35. [In Abt. iii, p. 63 cites *Cl. parvula*, Studer, as synonymous.]
- [1826. *Clausilia parvula* recorded by Turton (*Zool. Journ.*, ii, p. 566, as found at Torquay, was a variety of *Cl. rugosa*, Drap.)]
- ?1826. *Clausilia marckia* (N) : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 86. [*Teste Mortillet.*]
- ?1839. *Clausilia paula*, Parr. : ANTON, *Verz. Conch.*, p. 46. [*Teste Kreglinger.*]
- \*1843. *Stomodonta parvula* [sic?], nob. : MERMET, *Hist. Moll. Pyrénées occid.*, p. 47.
1848. *Rupicola parvula*, Hartm. in Sched. : PFEIFFER, *Mon. Helic. civ.*, ii, p. 463.
1848. *Rupicola minima*, Hartm. in Sched. : PFEIFFER, l. c.
1855. *Clausilia (Andraea) parvula*, Stud. : H. & A. ADAMS, *Genera Moll.*, ii, p. 181.
1860. *Clausilia (Iphigenia) parvula*, Stud. : MARTENS, Albers, *Helicen*, ed. 2, p. 283.
1875. *Clausilia (Pirostoma) parvula*, Stud. : MÖLLENDORFF, *Nachrbl. Deutsch. Malak. Gesell.*, vii, p. 27.
1877. *Clausilia (Pyrostoma) parvula*, Studer : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 274, f. 149.
1884. *Clausilia (Kuzmicia) parvula*, Stud. : WESTERLUND, *Fauna Paläarct. Region*, iv, p. 183.
1904. *Clausilia (Kuzmicia) parvula*, Studer : KOBELT, in Rossmässler, *Icon.*, N.F. xi, p. 234.

[GERMAIN (*Moll. France*, ii, p. 202) cites as synonyms :—*Cl. falax*, Jouss.; *Cl. atosuturalis*, Bourg.; *Cl. dilophia*, Mabille; *Cl. girathroa*, Bourg.; *Cl. eumicra*, Mab.; and *Cl. microlena*, Bourg.]

First recorded as British in 1913, by the Rev. C. E. Y. Kendall (*Journ. of Conch.*, xiv, p. 86), from the Pleistocene of Woodston, Huntingdonshire. Turton's record in 1826 was an error. (*See note above.*)

British Distribution in Time : Pleistocene.

4. †*Clausilia pumila* (Ziegler MS.), Pfeiffer.

Etym. :—Lat. *pumilus*, dwarfed.

1828. *Clausilia pumila*, Ziegler : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 41, pl. vii, f. 16.
1836. *Clausilia cuspidata*, mihi : HELD, *Isis*, xxix, col. 276. (*Cf. ib.* xxx, col. 902.)
1839. *Clausilia Partschii*, Fitz. : ANTON, *Verz. Conch.*, p. 45, in synon.
1851. *Clausilia lineolata*, Held : MALM, *Göteb. K. Vet. & Vitt. Samhäll. Handl., Ny Tids.* ii, p. 128. [*Teste Mörch.*]
1855. *Clausilia (Andraea) pumila*, Ziegl. : H. & A. ADAMS, *Genera Moll.*, ii, p. 181.
1860. *Clausilia (Iphigenia) pumila*, Ziegl. : MARTENS, *Albets, Heliceen*, ed. 2, p. 283.
1877. *Clausilia (Pyrostoma) pumila*, Ziegler : CLESSIN, *Deutsch. Excurs. Moll. Fauna*, p. 270, f. 147.
1881. *Clausilia (Pirostoma) pumila*, Ziegl. : KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 108.
1884. *Clausilia (Kuzmicia) pumila* (Z.) C. Pfr. : WESTERLUND, *Fauna Paläarct. Region*, iv, p. 191.
1904. *Clausilia (Cusmicia) pumila*, Ziegl. : KOBELT, in Ross-mässler's *Icon.*, N.F. xi, p. 234.

First recorded as British in 1888, from the Pleistocene of Barnwell, Cambridgeshire, by B. B. Woodward (*Proc. Geol. Assoc.*, x, p. 356).

British Distribution in Time : Pleistocene.

5. †*Clausilia ventricosa*, Draparnaud.

Etym. :—Low Lat. *ventricosus* (from *venter*, the belly), swollen.

- ?1789. *Helix muscosa* : STUDER, *Coxe's Trav. in Switzerl.*, iii, p. 431. [*nom. nud.*]
1801. *Pupa ventricosa* : DRAPARNAUD, *Tabl. Moll. France*, p. 62.
1805. *Clausilia ventricosa* : DRAPARNAUD, *Hist. Moll. France*, p. 71, pl. iv, f. 14.
1821. *Helix (Cochlodina) ventriculosa*, nobis : FÉRUSAC, *Tabl. syst. Lîmaçons*, Jan. ed., p. 67 (June ed., p. 63).

1821. *Clausilia plicata*, var.  $\gamma$ : HARTMANN, *Neue Alpina*, i, p. 217.
1836. *Clausilia rusiostoma*, mihi: HELD, *Isis*, xxix, col. 275. (Cf. *ib.* xxx, col. 306.)
1837. *Clausilia tumida*, Zigl. [MS.]: BECK, *Index Moll.*, p. 95.
- \*1843. *Stomodonta ventricosa*, nob.: MERMET, *Hist. Moll. Pyrénées occid.*, p. 48.
1855. *Clausilia (Plicaphora) ventricosa*, Drap.: H. & A. ADAMS, *Genera Moll.*, ii, p. 183.
1856. *Clausilia (Iphigena) ventricosa*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 344, pl. xxiv, f. 8-10.
1860. *Clausilia (Iphigenia) ventricosa*, Dr.: MARTENS, Albers, *Heliccen*, ed. 2, p. 282.
1861. *Clausilia bidens*: PORTER, *Geol. Peterborough*, pl. ii, explan. f. 6. [Non *C. bidens*.]
1867. *Clausilia (Pyrostoma) ventricosa*, Drap.: VEST, *Verhandl. Siebenbürg. Ver.*, xviii, p. 192.
1873. *Clausilia (Pirostoma) ventricosa*, Drap.: MOELLENDORFF, *Beitr. Fauna Bosniens*, p. 54.

[GERMAIN (*Moll. France*, ii, p. 206) considers *Cl. micropleura*, Bourg., to be a variety of this species.]

First recorded as British in 1843, by J. Morris, as *Cl. buplicata* = *Cl. ventricosa* from the Pleistocene of Clacton and Grays (*Cat. Brit. Foss.*, p. 142).

British Distribution in Time: Pleistocene.

## 6. *Clausilia rolfhii*, Leach in Turton.

Etym.:—Named in honour of the English conchologist, Mr. Rolph.

1805. *Clausilia plicatula* [pars]: DRAPARNAUD, *Hist. Moll. France*, p. 72.  
[According to Jeffreys (*Brit. Conch.*, i, p. 310) one specimen in Draparnaud's set was a *Cl. rolfhii*.]
1819. *Clausilia Rolfhii*: LEACH, *Moll. Brit. Synop.* (proofs), p. 119.
1820. *Helix (Clausilia) Rolfhii*, Leach: FÉRUSSAC, *Journ. Physique*, xc, p. 301. [*n. nud.*]
1821. *Clausilia (Iphigena) Rolfhii*: GRAY, *Lond. Med. Repos.*, xv, p. 239. [*n. nud.*]
1825. *Clausilia Rolfhii*, nob.: GRAY, *Ann. Phil.*, xxv (N.S. ix), p. 413. [*n. nud.*]
1828. *Clausilia plicatula*, Drap.: FLEMING, *Hist. Brit. Anim.*, p. 272.
1830. *Clausilia plicatula*, Drap.: JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 353.
1831. *Clausilia plicatula*, Drap.: TURTON, *Manual*, p. 71, f. 54.
1831. *Clausilia Rolfhii*: LEACH, in Turton's *Manual*, p. 71, in synonym.

1833. *Clausilia Rolphii*, Leach : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 513.
- 1840, } *Clausilia (Iphigenia) Rolphii* : GRAY, *Turton's Manual*,  
Apr. } new ed., p. 215, pl. v, f. 54.
- Post }  
Sept. } *Clausilia Rolphii*, Leach MSS. : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 38, pl. xviii, f. 31.
1845. *Clausilia Rolphii*, Leach MSS. : BROWN, *Illust. L. &*  
*& F.-W. Conch. Brit.*, p. 41, pl. iv, f. 39 & 40.
- 1852, } *Clausilia Rolphii* : LEACH, *Moll. Brit. Synop.*, p. 86,  
Feb. } pl. viii, f. 7.
- 1852, } *Clausilia plicatula*, Draparnaud : FORBES & HANLEY,  
Mar. } *Brit. Moll.*, iv, p. 120, pl. cxxix, f. 3.
- ?1853. *Clausilia Mortillet* [sic] : DUMONT, *Bull. Soc. Hist. Nat.*  
*Savoie*, p. 78. [*Teste Pfeiffer.*]
1856. *Clausilia (Iphigena) rolphii*, Gray : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 343, pl. xxiv,  
f. 32-35.
1857. *Clausilia (Iphigenia) Rolphii*, Gray : GRAY, *Turton's*  
*Manual*, new ed., p. 185, pl. v, f. 54.
1859. *Clausilia satelles*, A. Schmidt olim : PFEIFFER, *Mon.*  
*Helic. viv.*, iv, p. 763, in synonym.
1862. *Clausilia Rolphii*, Gray : JEFFREYS, *Brit. Conch.*, i,  
p. 281 ; v, pl. xvii, f. 3.
1863. *Clausilia Rolphii*, Gray : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 102, figs.
1877. *Clausilia (Pyrostoma) Rolphii*, Leach : CLESSIN, *Deutsch.*  
*Excur. Moll. Fauna*, p. 249, f. 139.
1884. *Clausilia (Pyrostoma) rolphi* (Leach) Gray : WESTERLUND,  
*Fauna Paläarct. Region*, iv, p. 200.

[GERMAIN (*Moll. France*, ii, p. 206) considers *Cl. digonostoma*, Bourg.; and *Cl. oxiniomicra*, Bourg., to be synonyms.]

First recorded as British in 1820, by Férussac, as *Helix* (*Clausilia*) *Rolphii*. (See ref. above.)

British Distribution in Time : Holocene and Recent.

(Sub-fam. : MARPESSINÆ.)

Genus : 4. MARPESSA, Gray.

Etym. :—Named after Marpessa, the daughter of Evenus.

Type :—*Clausilia bidens* = *Cl. laminata*, Montagu.

(*Helix*, *Turbo*, *Strombiformis*, *Bulimus*, *Cerion*, *Papa*, *Clausilia*,  
vett. auct.)

1821. *Marpessa*, subg. of *Clausilia* : GRAY, *Lond. Med. Repos.*, xv, p. 239. [*Non Marpesia*, Hübner, 1816 ;  
*nec Marpissa*, Koch, 1847.]

1840. *Marpessa*, subg. of *Clausilia*: GRAY, in Turton's *Manual*, new ed., p. 212.  
 1855. *Clausiliustra*, subg. of *Clausilia*: PFEIFFER, *Malak. Blütt.*, ii, p. 180.  
 1882. *Marpessa* [as a genus]: JOUSSEAUME, *Bull. Soc. Zool. France*, vii, p. 452.

1. *Marpessa laminata* (Montagu).

Etym.:—Lat. *lamina*, a plate.

1774. *Helix bidens*: MÜLLER, *Verm. Hist.*, ii, p. 116. [Non Linné.]  
 1777. *Turbo bidens*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, 8vo, p. 131; 4to, p. 113, pl. lxxxii [f. 117].  
 ?1778. *Strombiformis* [pars]: DACOSTA, *Test. Brit.*, p. 107.  
 1791. *Turbo bidens* [pars]: GMELIN, *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3609.  
 [Montagu (*Test. Brit.*, p. 356) cites Gmelin's *Turbo perversus* as a synonym for this species, but that was *Balea*.]  
 1792. *Bulimus bidens*, nob.: BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 352.  
 1798. *Cerion bidens*, Gmelin [pars]: BOLTEN, *Mus. Bolt.*, ii, p. 90.  
 1799. *Turbo bidens*: PULTENEY, *Cat. Dorset.*, p. 46.  
 1801. *Pupa bidens*: DRAPARNAUD, *Tabl. Moll. France*, p. 61.  
 1803. *Turbo laminatus*: MONTAGU, *Test. Brit.*, p. 359, pl. xi, f. 4.  
 1805. *Clausilia bidens*, Mull.: DRAPARNAUD, *Hist. Moll. France*, p. 68, pl. iv, f. 5-7.  
 1807. *Turbo laminatus*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 179.  
 1813. *Turbo laminatus*: RACKETT, Pulteney's *Cat. Dorset.*, ed. 2, p. 51, pl. xix, f. 9.  
 1813? *Odostomia laminata*: FLEMING, *Edinb. Ency.*, vii, p. 76, pl. cciii, f. 6.  
 1815. *Volvulus bidens*: OKEN, *Lehrb. Naturg.*, iii, abt. 1, p. 313.  
 1817. *Turbo laminatus*, Pult.: DILLWYN, *Cat. Shells*, ii, p. 874.  
 1819. *Clausilia lamellata*: LEACH, *Moll. Brit. Synop.* (proofs), p. 118.  
 1820. *Helix (Clausilia) bidens*, Flem.: FÉRUSAC, *Journ. Phys.*, xc, p. 300.  
 1821, } *Helix (Cochlodina) derugata*: FÉRUSAC, *Tabl. syst.*  
 Jan. } *Limaçons*, Jan. ed., p. 67 (June ed., p. 63).  
 1821, } *Clausilia bidens*, Linn.: C. PFEIFFER, *Naturg. Deutsch.*  
 early } *Moll.*, i, p. 60, pl. iii, f. 25.  
 1821, } *Clauselia (Marpessa) bidens hyalina*: GRAY, *Lond. Med.*  
 Mar } *Repos.*, xv, p. 239.

1821. } *Clausilia ampla*: HARTMANN, Sturm's *Deutschl. Fauna*,  
late. } vi, hft. 5, p. 50. [*Nom. nud.*]
1823. *Turbo bidens*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 456.
1823. *Turbo laminatus*: [BROWN], *l. c.*
1827. *Clausilia bidens*, Pfeiffer: BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xli, f. 12.
1830. *Clausilia derugata*: JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 354.
1831. *Clausilia laminata*, Montagu: TURTON, *Manual*, p. 70,  
f. 53.
1831. *Clausilia lamellata*: LEACH, Turton's *Manual*, p. 70  
in synonym.
1840. } *Clausilia (Marpessa) bidens*, Müller: GRAY, Turton's  
Apr. } *Manual*, new ed., p. 212, pl. v, f. 53.
- Post }  
Sept. } *Clausilia bidens*, Drapernaude: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 37, pl. xiv, f. 12.
1845. *Clausilia bidens*, Drapernaude: BROWN, *Illust. L. &*  
*F.-W. Conch. Brit.*, p. 38, pl. iv, f. 33 & 34;  
xxiv, f. 28.
1850. *Clausilia phalerata* [Ziegl. MS.]: DUPUY, *Hist. Nat.*  
*Moll. France*, p. 345, pl. xvi, f. 7.
1852. } *Clausilia lamellata*: LEACH, *Moll. Brit. Synop.*, p. 85.  
Feb. }
1852. } *Clausilia laminata*, Montagu: FORBES & HANLEY, *Brit.*  
Mar. } *Moll.*, iv, p. 116, pl. cxxviii, f. 10.
1856. } *Clausilia (Marpessa) laminata*, Mont.: MOQUIN-TANDON,  
Jan. } *Hist. Moll. France*, ii, p. 318, pl. xxiii, f. 2-9.
1856. } *Clausilia (Clausiliustra) laminata*, Mont.: PFEIFFER,  
Dec. } *Malak. Blätt.*, ii, p. 180.
1857. *Clausilia (Marpessa) bidens*, Müller: GRAY, Turton's  
*Manual*, new ed., p. 182, pl. v, f. 53.
1862. *Clausilia laminata*, Montagu: JEFFREYS, *Brit. Conch.*,  
i, p. 284; v, pl. xvii, f. 5.
1863. *Clausilia laminata*, Montagu: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 100, figs.
1876. *Clausilia (Marpessa [sic]) laminata*, Montagu: CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, p. 229, f. 130.
1882. *Marpessa laminata*, Mont.: JOUSSEAUME, *Bull. Soc.*  
*Zool. France*, vii, p. 452, pl. xii, f. 1-4.

[PFEIFFER (*Mon. Helic. viv.*, ii, p. 398) refers the following MS. names to this species, viz.:—*Cl. grossa*, *granatina*, *ungulata*, *lucida*, all of Ziegler, and *Cl. transylvanica*, Stentz in Sched.]

GERMAIN (*Moll. France*, p. 194) states that *Cl. plagiostoma silanica*, and *sequania*, all of Bourguignat, are but poor varieties.]

First recorded as British in 1685, by M. Lister (*Hist. Conch.*, i, pl. xli, f. 39).

British Distribution in Time: Pleistocene to Recent.



## Fam. : ACHATINIDÆ.

(Sub-fam. : FERUSSACHINÆ.)

## Genus : 1. CECILIOIDES, Férussac.

Etym. :—Lat. *cæcus*, blind + Gr. *εἶδος*, form.Type :—Genotype, *Bulimus acicula*, Bruguière.(*Buccinum*, *Helix*, *Bulimus*, *Achatina*, vett. auctt.)

1814. *Cecilioïdes* : FÉRUSSAC, *Mém. Géologiques*, p. 48, for *Bulimus acicula*, Brug. ["*Cecilionides*" and "*Cecilioïde*," two other vernacular names by Férussac, were published by Blainville in the *Dict. Sci. Nat.*, v, Suppt., 1817, p. 129, and vii, 1817, p. 332, respectively.]
1826. *Acicula* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 81, for *A. cburnca*, n. nov. for *Buccinum aciculum*, Müller. [*Non Acicula* Renier, 1807 (Vermes), nec Hartmann, 1821.]
1830. *Cionella* [pars] : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 347.
1832. *Columna*, Perry [pars] : CRISTOFORI & JAN, *Cat. Rerum Nat.*, Sect. II, pt. 1, p. 4.
1833. *Styloïdes* [pars] : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 105.
1838. *Achatinella*, subg. of *Achatina* [pars] : SCHLÜTER, *Kurz. Syst. Verzeichn.*, p. 8. [*Non* Swainson, 1828.]
- ?1840. *Bclonis* : HARTMANN, *Erd- & Süsww.-Gasterop.*, p. 48, for *B. acicula* [author not given].
1841. *Polyphemus*, Montf. [pars] : VILLA, *Disp. Conch.*, p. 19.
1846. *Cacilioïdes* Feruss. [em.] : HERRMANNSEN, *Ind. Gen. Malac. Primord.*, p. 150 [= *Acicula*, Risso]. [*Non Cacilioïdes*, Duméril & Bibr., 1841 (Rept.).]
1850. *Glandina*, Schum. [pars] : ALBERS, *Heliccen*, p. 199.
1855. *Sira* [pars] : A. SCHMIDT, *Abhandl. Naturw. Ver. Sachsen*, i, no. 1, pp. 5 & 42. [*Cf.* also *Zeitschr. Gesammt. Naturw. Berlin*, viii, p. 140.]
1856. *Cacilianella* : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. viii, p. 378 (*Amén. Malac.*, i, p. 213).
- \*1865. *Cacilianella* : ARANGO, in Poey, *Repert.*, i, p. 128. [*Teste* Pfeiffer, *Mon. Helic. Viv.*, vi, p. 240.]
1887. *Aciculina*, sect. of subg. *Cacilionella* of gen. *Cionella* : WESTERLUND, *Fauna Paläarct. Region*, iii, p. 175.

1. *Cecilioides acicula* (Müller).

Etym. :—Lat. *acicula*, a small pin.

1774. *Buccinum acicula* : MÜLLER, *Verm. Hist.*, ii, p. 150.
1789. *Helix acicula* : STUDER, in COXE, *Trav. in Switzerld.*, iii, p. 387.
1789. *Bulimus acicula*, nob. : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 311.
1791. *Helix octona* [pars] : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3653, no. 120.
- ?1798. *Buccinum obtusulum* : JACOB, in ADAMS, *Essays on Micro.*, ed. 2, p. 639, pl. xiv, f. 25.
1798. *Buccinum longiusculum* : JACOB, *o. c.*, p. 639, pl. xiv, f. 26.
1801. *Bulimus acicula* (Müll.) : DRAPARNAUD, *Tabl. Moll. France*, p. 67.
1802. *Buccinum obtusulum* : TURTON, *Linn. Gen. Syst. Nat.*, iv, pp. 387 & 416. [Includes both the *obtusulum* and *longiusculum* of Jacob, 1798.]
1803. *Buccinum terrestre* : MONTAGU, *Test. Brit.*, p. 248, pl. viii, f. 3.
1805. *Bulimus acicula*, Müll. : DRAPARNAUD, *Hist. Moll. France*, p. 75, pl. iv, f. 25 & 26.
1807. *Buccinum terrestre* : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 139.
1814. *Cecilioides acicula*, Brug. : FÉRUSSAC, *Mém. Géologiques*, p. 48.
1817. *Buccinum aciculum*, Müll. : DILLWYN, *Cat. Shells*, ii, p. 652.
1818. *Achatina acicula*, Müller : FLEMING, Suppt. 4–6th ed. *Ency. Brit.*, iii, p. 310.
- 1820, } *Helix (Polyphemus) acicula* : FÉRUSSAC, *Journ. Physique*,  
Apr. } xc, p. 300
- 1820, } *Bulimus acicula* : STUDER, *Naturw. Anz. Schweiz.*  
May. } *Gesell.*, iii, p. 88. (In reprint, "Syst. Verzeichn.," p. 18.)
1821. *Helix (Cochlicopa) acicula*, Müller : FÉRUSSAC, *Tabl. Syst. Limaçons*, Jan. ed., p. 55 (June ed., p. 51).
1821. *Bulimus acicula*, Drap. : HARTMANN, *Neue Alpina*, i, p. 222.
1821. *Bulimus acicula*, Müll. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 51, pl. iii, f. 8 & 9.
- 1822, } *Achatina acicula* : LAMARCK, *Hist. Anim. s. Vert.*, vi,  
Apr. } pt. 2, p. 133.
- 1822, } *Achatina acicula*, Müller : FLEMING, Suppt. 4–6th ed.  
May. } *Ency. Brit.*, v, p. 574.
- ?1826. *Acicula eburnea* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 81. [*N. nov.* for *Buccinum acicula*, Müller.]

1827. *Achatina alba*, Brown's MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 82.
1830. *Cionella acicula*, Müll. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 348.
1831. *Achatina acicula*, Lam. : TURTON, *Manual*, p. 89, f. 71.
1832. *Columna acicula*, Brug. : CRISTOFORI & JAN, *Cat. Rerum Nat.*, Sect. II, pt. 1, p. 4.
1832. *Columna aciculoides* : } CRISTOFORI & JAN, *o. c.*, Man-  
1832. *Columna miliaris* : } tissa, p. 2.
1833. *Styloides acicula*, Férussac : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 105.
1836. *Achatina pusilla*, Scac. : SCACCHI, *Cat. Conch. Reg. Napoli*, p. 16, in synon.
1837. *Achatina acuta* : COMPANYO, *Bull. Soc. Philom. Perpignan*, iii, p. 92. [*n. nud.*]
1837. *Achatina (Acicula) acicula* (O. Müll.) : } BECK, *Index*  
1837. *Achatina (Acicula) miliaris* (Chr. et J.) B. : } *Moll.*, p. 79.
1838. *Achatina (Achatinella) acicula*, m. (Lamk.) : SCHLÜTER, *Kurz. Syst. Verzeichn.*, p. 8.
1840. } *Achatina (Acicula) acicula*, Müller : GRAY, Turton's  
Apr. } *Manual*, new ed., p. 191, pl. vi, f. 71.  
Post }  
Sept. } *Achatina acicula*, Lamarck : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 36, pl. xiv, f. 82 ; pl. xviii, f. 12.
- ?1840. *Belonis acicula* : HARTMANN, *Syst. Erd- & Sussw.-Gasterop. Europ.*, p. 48. [*N. nud.*]
1841. *Polyphemus acicula*, Lam. : VILLA, *Disp. Conch.*, p. 20.
1845. *Achatina acicula*, Lamarck : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 32, pl. iv, f. 28 & 29.
1847. *Acicula acicula* : GRAY, *Proc. Zool. Soc. Lond.*, 1847, p. 178.
1847. *Bulimus (Cecilioides) acicula* : BECK, *Antl. Ber. 24. Versamm. Deutsch. Naturf.*, p. 122.
1848. *Achatina aciculoides*, Jan. : PFEIFFER, *Mon. Helic. vivent.*, ii, p. 274.
1850. *Glandina (Cionella) acicula*, Müll. : ALBERS, *Heliceen*, p. 199.
1852. } *Achatina acicula*, Müller : FORBES & HANLEY, *Hist.*  
Apr. } *Brit. Moll.*, iv, p. 130, pl. cxxviii, f. 4.
1856. } *Bulimus (Acicula) acicula*, Müll. : MOQUIN-TANDON,  
Jan. } *Hist. Moll. France*, ii, p. 309, pl. xxii, f. 32-34.
1856. } *Sira acicula*, Müller : A. SCHMIDT, *Zeitschr. Gesammt.*  
July. } *Naturw. Berlin*, viii, p. 140.
1856. } *Cæcilianella acicula* : BOURGUIGNAT, *Rev. & Mag. Zool.*,  
Aug. } Sér. II, tom. viii, p. 382, pl. xii, f. 1-3.  
(*Amén. Malac.*, i, p. 215, pl. xviii, f. 1-3.)
1856. } *Cæcilianella anglica* : BOURGUIGNAT, *t. c.*, p. 384, pl. xii,  
Aug. } f. 4 & 5. (*t. c.*, p. 216, pl. xviii, f. 4 & 5.)
1856. } *Cæcilianella Liesvillei* : BOURGUIGNAT, *t. c.*, p. 385,  
Aug. } pl. xii, f. 6-8. (*t. c.*, p. 217, pl. xviii, f. 6-8)

- 1856, } *Achatina* (*Cæcilioides*) *acicula*, Müll. : PFEIFFER, *Malak.*  
Dec. } *Blätter*, ii, p. 170.
1857. *Achatina* *Acicula*, Müller : GRAY, *Turton's Manual*,  
new ed., p. 158, pl. vi, f. 71.
1860. *Cionella* (*Acicula*) *acicula*, Müll. : MARTENS, in Albers,  
*Heliceen*, ed. 2, p. 260.
- 1860, } *Cæcilianella* *enhalia* : BOURGUIGNAT, *Malac. Bretagne*,  
June. } p. 158, pl. ii, f. 14-16. [*Teste* Granger.]
- 1860, } *Acicula* *hyalina*, E. A. Bielz : BIELZ, *Verhandl. Sieben-*  
Dec. } *bürg. Ver. Naturw.*, xi, p. 296.
1861. *Cæcilianella* *eburnea* [Risso] : BOURGUIGNAT, *Études*  
*synon. Moll. alpes Maritimes*, p. 43, pl. i,  
f. 20-22.
1862. *Achatina* *acicula*, Müller : JEFFREYS, *Brit. Conch.*, i,  
p. 297; v, pl. xviii, f. 3.
1863. *Achatina* *acicula*, Müller : REEVE, *L. & F.-W. Moll.*  
*Brit.*, Is. p. 97, figs.
1864. *Cæcilianella* *uniplicata* : BOURGUIGNAT, *Malac. Aix-les-*  
*Bains*, p. 55, pl. ii, f. 3-5. [*Teste* Grainger.]
1870. *Ferussacia* (*Cæcillianella*) *acicula*, Müll. : BRUSINA,  
*Contrib. Malac. Croatie*, p. 18.
1881. *Cionella* (*Cæcilianella*) *acicula*, Müll. : KOBELT, *Cat.*  
*Europ. Binnenconch.*, ed. 2, p. 62.
1889. *Cæcilianella* *eburnea*, Risso : GOURDON, *Cat. Moll. Vall.*  
*de la Pique*, p. 59.
1902. *Cæcilianella* (*Aciculina*) *acicula*, Müll. : WESTERLUND,  
*Rad Jugoslav. Akad.*, eli, p. 115.

[According to Pilsbry (*Man. Conch.*, Ser. II, vol. xx, p. 10)  
the *Stenogyra octona*, var. *danica* of Schlesch (*Ann.*  
*Soc. Zool. & Malac. Belg.*, xli, 1906, p. 184) belongs  
to this species.]

First recorded as British in 1784, by Boys & Walker  
(*Test. Minut. var.*, p. 16, pl. ii, f. 60).

British Distribution in Time : Pleistocene to Recent.

## Fam. : TESTACELLIDÆ.

### Genus : 1. TESTACELLA, Lamarck.<sup>1</sup>

Etym. :—Dimin. of Lat. *testa*, a shell.

Type :—Genotype, *T. haliotoides*, Lamarck.

1800. *Testacella* : CUVIER, *Leçons Anat. comp.*, i, tabl. 5.  
[*N. nud.*]

1801, } *Testacella* : LAMARCK, *Syst. Anim. s. Vert.*, p. 96.  
Jan. }

<sup>1</sup> For discussion as to the nomenclature of the species, see KENNARD &  
WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, 1920, p. 77.

1801. *Helico-limax* [pars]: FÉRUSSAC, *Mém. Soc. Méd. Émul. France*, iv, p. 390.  
 1810. *Testacellus*: MONTFORT, *Conch. Syst.*, ii, p. 94.

1. *Testacella haliotoides*, Lamarck.

Etym. :—*Haliotis*, a genus of Gastropoda + Gr. εἶδος, form.

- 1801, } *Testacella haliotoides*, n. : LAMARCK, *Syst. Anim. s. Vert.*,  
 Jan. } p. 96.  
 1805. *Testacella haliotoides* [Lamk.] : ROISSY, *Hist. Nat. Moll.*  
 (Suites Sonnini's Buffon), v, p. 253.  
 1807. *Testacella haliotoides*, Roissy : FÉRUSSAC, *Essai méthod.*  
*Conch.*, p. 41.  
 1810. *Testacula* [sic] *haliotoides* [Roissy] : LEDRU, *Voy. Îles*  
*Teneriffe*, etc., i, p. 187.  
 1819. *Testacellus Maugei*, nobis : FÉRUSSAC, *Hist. Nat. Moll.*,  
 ii, p. 94, pl. viii, f. 10 & 12.  
 1821. *Testacellus Maugei*, De Fér. : SOWERBY, *Genera*, pt. 1,  
*Testacellus*, f. 7–10.  
 1822. *Testacella Maugei*, Sowerby : MILLER, *Ann. Phil.*, N.S.  
 iii, p. 380.  
 1828. *Testacella Maugei* : FLEMING, *Hist. Brit. Anim.*, p. 257.  
 1831. *Testacellus Maugei*, De Fér. : TURTON, *Manual*, p. 27, f. 18.  
 1840. *Testacella Maugei*, Férussac : GRAY, *Turton's Manual*,  
 new ed., p. 5, pl. iii, f. 18.  
 1852. *Testacella Maugei*, Férussac : FORBES & HANLEY, *Hist.*  
*Brit. Moll.*, iv, p. 28.  
 1855. *Testacella Burdigalensis*, Gassies [MS.], an sp. nova ? :  
 GRATELOUP, *Distrib. géograph. Limaciens*,  
 p. 15.  
 1855. *Testacella canariensis* [n. nov.] : GRATELOUP, *o. c.*, p. 15.  
 1855. *Testacella canariensis* [n. nov.] : GRATELOUP, *o. c.*, p. 16.  
 1857. *Testacellus Maugei* [sic] : GRAY, *Turton's Manual*, new  
 ed., p. 56, pl. iii, f. 18.  
 1862. *Testacella Maugei*, Fér. : JEFFREYS, *Brit. Conch.*, i,  
 p. 147.  
 1863. *Testacella Maugei*, Férussac : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 32, figs.  
 1902. *Testacella maugei*, Férussac : TAYLOR, *Monog. Moll.*  
*Brit. Is.* [ii], p. 21, pl. i, f. 9–16.

First recorded as British in 1819, by Férussac, as *Testacellus Maugei*. (See ref. above.)

British Distribution in Time : Holocene and Recent.

2. *Testacella europæa*, Roissy.

Etym. :—Lat. *europæus*, European.

- 1801, } *Testacella haliotideca* : DRAPARNAUD, *Tabl. Moll. France*,  
 July. } p. 99. [*Non haliotoides*, Lamarck, 1801, Jan.]

1802. [Animal described but not named:] FAURE-BIGUET,  
*Bull. Sci. Soc. Philom. Paris*, AN x, p. 98,  
pl. v, f. [2] A-D.
- 1805, } *Testacella haliotoidea*: CUVIER, *Ann. Mus. Hist. Nat.*  
Feb. f } *Paris*, v, p. 440.
- 1805, } *Testacella europæa*: ROISSY, *Hist. Nat. Moll.* (Suites  
June. f } Sonnini's Buffon), v, p. 252.
- 1805, } *Testacella haliotidea*: DRAPARNAUD, *Hist. Moll. France*,  
late. f } p. 121, pl. viii, f. 43-45; ix, f. 12-14.
- \*1806. *Helix subterranea*: LAFON-DU-CUJULA, *Descript. Moll.*  
*Lot-et-Garonne*, p. 143.
1807. *Testacella haliotidea*, Faure-Biguet: FÉRUSSAC, *Essai*  
*method. Conch.*, p. 41.
1810. *Testacellus Europæus*: MONTFORT, *Conch. Syst.*, ii, p. 95,  
fig. (shell), p. 94.
1815. *Testacella Gallia*: OKEN, *Lehrb. Naturg.*, iii, abt. 1,  
p. 312.
1819. *Testacellus haliotideus*, Faure-Biguet: FÉRUSSAC, *Hist.*  
*Nat. Moll.*, ii, p. 94, pl. viii, f. 5-9,  
13-15.
1821. *Testacellus haliotideus*, De Fér.: SOWERBY, *Genera*, pt. 1,  
*Testacellus*, f. 1 & 2.
- 1822, } *Testacella haliotidea*, Faure Biguet: LAMARCK, *Hist.*  
Apr. f } *Anim. s. Vert.*, vi, pt. 2, p. 52.
1831. *Testacellus haliotideus*, Drap.: TURTON, *Manual*, p. 29,  
f. 20.
- 1840, } *Testacellus haliotideus*, Fér.: GRAY, Turton's *Manual*,  
Apr. f } new ed., p. 124, pl. iii, f. 20.
- Post }  
Sept. } *Testacella haliotoidea*, Draparnaud: BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 54, pl. xviii\*, f. 15 & 16.
1845. *Testacella haliotoidea*, Draparnaud: BROWN, *Illust. L.*  
*& F.-W. Conch. Brit.*, p. 89, pl. ix, f. 24 & 25;  
xxvi, f. 1.
1852. *Testacella haliotoidea*, Draparnaud: FORBES & HANLEY,  
*Hist. Brit. Moll.*, iv, p. 26, pl. I, I, I,  
f. 1.
1855. *Testacella haliotidea*, Drap.: MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 39, pl. v (except f. 20  
& 21).
1857. *Testacellus haliotideus*, Faure, Big.: GRAY, Turton's  
*Manual*, new ed., p. 54, pl. iii, f. 20.
1862. *Testacella Haliotidea*, Draparnaud: JEFFREYS, *Brit.*  
*Conch.*, i, p. 145, pl. v, f. 6; and v, pl. viii,  
f. 3.
1863. *Testacella haliotidea*, Draparnaud: REEVE, *L. & F.-W.*  
*Moll. Brit. Is.*, p. 30, figs.
1902. *Testacella haliotidea*, Draparnaud: TAYLOR, *Monog.*,  
*Moll. Brit. Is.* [ii], p. 6, pl. i, f. 1-5.



[KNAPP (*Journal of a Naturalist*, 1829, p. 341) records the occurrence of "*Testacellus halotideus*" [sic], by which from the context he probably intended the present species, though he obviously was not aware there was more than one.]

First definitely recorded from Guernsey in 1834, by F. C. Lukis (*Mag. Nat. Hist.*, vii, p. 224), and from the British Zoological area in 1852, by Forbes & Hanley. (See ref. above.)

British Distribution in Time: Recent.

### 3. *Testacella scutulium*, Sowerby.

Etym. :—Dimin. of Lat. *scutum*, a shield.

1805. *Testacella halioidea* [pars]: DRAPARNAUD, *Hist. Moll. France*, p. 121, pl. viii, f. 46-48.
1821. *Testacellus scutulium*: SOWERBY, *Genera*, pt. 1, *Testacellus*, f. 3-6.
1831. *Testacellus scutulium*, Sby.: TURTON, *Manual*, p. 28, f. 19.
1838. *Testacellus scutulium* [sic], Sowerby: LESSON, *Rev. Zool. Soc. Civ.* [i], p. 250.
1840. } *Testacellus halioideus*, var.: GRAY, Turton's *Manual*,  
Apr. } new ed., p. 125, pl. iii, f. 19.
- Post }  
Sept. } *Testacella halioidea*, var. *scutulium*, Sowerby: BROWN,  
1840. } *Illust. Conch. Brit.*, ed. 2, p. 54.
1845. *Testacella halioidea*, var. *scutulium*, Sowerby: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 89.
1852. *Testacella halioidea*, Draparnaud [pars]: FORBES & HANLEY, *Hist. Brit. Moll.*, iv, p. 27.
1855. } *Testacella Anglica*: GRATELOUP, *Distrib. géograph.*  
June. } *Limaciens*, p. 15.
1855. } *Testacellus halioidea*, var.  $\epsilon$ , *scutulium*: MOQUIN-TANDON,  
Sept. } *Hist. Moll. France*, ii, p. 39, pl. v, f. 20 & 21.
1856. *Testacellus Medii Templi*, Thos. Tapping: TAPPING, *Zoologist*, xiv, p. 5105.
1857. *Testacellus halioideus*, var.: GRAY, Turton's *Manual*, new ed., p. 56, pl. iii, f. 19.
1862. *Testacella halioidea*, var. *scutulium*: JEFFREYS, *Brit. Conch.*, i, p. 145.
1863. *Testacella halioidea* [pars]: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 30.
1902. *Testacella scutulium*, G. B. Sowerby: TAYLOR, *Monog. Moll. Brit. Is.* [ii], p. 14, pl. i, f. 6-8.

First recorded as British in 1821, by G. B. Sowerby. (See ref. above.)

British Distribution in Time: Recent.

(Division : *Heterurethra*.)

Fam. : SUCCINEIDÆ.

Genus : 1. **SUCCINEA**, Draparnaud.

Etym :—Lat. *succineus*, made of amber.

Type :—*Helix putris*, Linné. (Selected by Fleming, 1822.)  
(*Helix*, *Cochlea*, *Turbo*, *Bulimus*, vett. auctt.)

1801. *Succinea* : DRAPARNAUD, *Tabl. Moll. France*, p. 55.  
 1805. *Amphibulima* : LAMARCK, *Ann. Mus. Hist. Nat. Paris*,  
 vi, p. 304.  
 1810. *Amphibulimus* : MONTFORT, *Conch. Syst.*, ii, p. 90.  
 1815. *Lucena* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 312.  
 1820. *Tapada* : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*,  
 iii, p. 86. (In reprint, "Syst. Verzeichn.,"  
 p. 11.)  
 1821. *Amphibina* : HARTMANN, *Neue Alpina*, i, p. 208.  
 1821. *Amphibulina* : HARTMANN, in Sturm's *Deutschl. Fauna*,  
 vi, hft. 5, p. 42 & hft. 8, 1829, no. 6-8.  
 1876. *Neritostoma*, Klein : JOUSSEAUME, *Bull. Soc. Zool.*  
*France*, i, p. 72. [Klein's work was pre-  
 Linnean.]

### 1. *Succinea putris* (Linné).

Etym. :—Lat. *putris*, stinking.

1758. *Helix putris* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 774,  
 no. 614.  
 1767. *Helix putris* : LINNÆUS, *o. c.*, ed. 12, p. 1249, no. 705.  
 1767. *Cochlea putris*, Linn. : GEOFFROY, *Traité Coq. Paris*,  
 p. 60.  
 1774. *Helix succinea* : MÜLLER, *Verm. Hist.*, ii, p. 97.  
 1778. *Turbo trianfractus* : DACOSTA, *Test. Brit.*, p. 92, pl. v,  
 f. 13.  
 1789. *Bulimus succineus*, Nob. : BRUGUIÈRE, *Ency. Méthod.*,  
 Vers, i, p. 308.  
 1791. *Helix putris* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i,  
 pt. 6, p. 3659, no. 135.  
 1799. *Helix limosa* : PULTENEY, *Cat. Dorset.*, p. 48. [Non  
 Linné.]  
 1801. *Succinea amphibia* : DRAPARNAUD, *Tabl. Moll. France*,  
 p. 55.  
 1803. *Helix putris*, Lin. : MONTAGU, *Test. Brit.*, p. 376, pl. xvi,  
 f. 4.  
 1805. *Succinea amphibia* : DRAPARNAUD *Hist. Moll. France*.  
 p. 58, pl. iii, f. 22.

- 1805, } *Amphibulina succinea* : LAMARCK, *Ann. Mus. Hist. Nat.*  
 Aug. } *Paris*, vi, p. 306.
1807. *Helix succinea*, MÜLLER : MATON & RACKETT, *Trans.*  
*Linn. Soc.*, viii, p. 218.
1813. *Helix succinea* : RACKETT, in Pulteney, *Cat. Dorset.*,  
 ed. 2, p. 56, pl. xviii, f. 19.
- 1813? *Lymnaea succinea* : FLEMING, *Edinb. Ency.*, vii, p. 77.
1815. *Luccena putris* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 312.
1817. *Helix putris*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 965.
1817. *Helix limosa*, Linn. : DILLWYN, *t. c.*, p. 966. [*Non*  
 Linné.]
1819. *Succinea Mülleri* : LEACH, *Moll. Brit. Synop.* (proofs),  
 p. 78.
- 1820, } *Helix (Succinea) putris* : FÉRUSSAC, *Journ. Physique*, xc,  
 Apr. } p. 300.
- 1820, { *Tapada putris* : STUDER, *Naturw. Anz. Allg. Schweiz.*  
 May. { *Gesell.*, iii, p. 86. (In reprint, "Syst.  
 Verzeichn.," p. 11.)
1821. *Helix (Cochlohydra) putris* : FÉRUSSAC, *Tabl. syst.*  
*Limaçons*, Jan. ed., p. 30 (June ed., p. 26);  
*Hist.*, pl. xi, f. 4-9.
1821. *Amphibina putris* : HARTMANN, *Neue Alpina*, i, p. 247.
1821. *Succinea amphibia*, Drap. : C. PFEIFFER, *Naturg.*  
*Deutsch. Moll.*, i, p. 67, pl. iii, f. 36 & 38.
1823. *Helix limosa* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 461.
1826. *Succinea major* (N) : RISSO, *Hist. Nat. Europ. mérid.*,  
 iv, p. 59.
- [According to Caziot the single specimen included must  
 have been adventitious, since the species does not  
 occur in the Alpes Maritimes.]
1827. *Succinea amphibia*, Lam. : BROWN, *Illust. Conch. Brit.*,  
 ed. 1, pl. xlii, f. 41 & 42.
1828. *Succinea putris* : FLEMING, *Brit. Anim.*, p. 267.
1830. *Succinea putris*, Linn. : JEFFREYS, *Trans. Linn. Soc.*,  
 xvi, p. 325.
1831. *Succinea amphibia*, Drap. : TURTON, *Manual*, p. 91,  
 f. 73.
1831. *Succinea Mulleri* : LEACH, in Turton's *Manual*, p. 91,  
 in synon.
- 1840, } *Succinea putris*, Linn. : GRAY, Turton's *Manual*, new  
 Apr. } ed., p. 178, pl. vi, f. 73.
- Post } *Succinea amphibia*, Drapernaud : BROWN, *Illust. Conch.*,  
 Sept. { *Brit.*, ed. 2, p. 35, pl. xviii, f. 22, 23.
1840. } *Succinea amphibia*, Drapernaud : BROWN, *Illust. L. &*  
 1845. { *F.-W. Conch. Brit.*, p. 30, pl. iv, f. [20 & 21],  
 pl. xxiv, f. 22.
1847. *Helix Edusa*, Ch. : NARDO, *Sinon. Species Chiareghini*,  
 col. 93.

1847. *Helix Dafne*, Ch. : NARDO, *l. c.*
- 1852, }  
Feb. f } *Succinea Mülleri* : LEACH, *Moll. Brit. Synop.*, p. 58.
- 1852, }  
Apr. f } *Succinea putris*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, iv, p. 132, pl. cxxxii, f. 1, 2, 4 & 5.
1852. *Succinea Baudoni*, Drouët [MS.] : BAUDON, *Mém. Acad. Oise*, ii, p. 144. [Figd. by Baudon, *Journ. de Conchyl.*, xxv, 1877, pl. vii, f. 2.]
- 1855, }  
Sept. f } *Succinea putris*, Linn. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 55, pl. vii, f. 1-5.
- 1855, }  
Nov. f } *Succinea (Tapada) putris*, L. : PFEIFFER, *Malak. Blätt.*, ii, p. 118.
- ?1856. *Succinea pellucida*, Küster : KÜSTER, *Ber. Naturf. Ver. Bamberg*, iii, p. 74.
1857. *Succinea putris*, Linn. : GRAY, *Turton's Manual*, new ed., p. 146, fig. 41, pl. vi, f. 73.
1859. *Succinea debilis*, Morelet [MS.] : PFEIFFER, *Mon. Helic. viv.*, iv, p. 811.
1862. *Succinea putris*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 151; v, pl. viii, f. 4.
1863. *Succinea putris*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 42, figs.
1864. *Succinea (Neritostoma) putris*, L. : MÖRCH, *Synop. Moll. Danicæ*, p. 32.
1866. *Succinea stagnalis*, Gassies : GASSIES, *Act. Soc. Linn. Bordeaux*, xxvi, p. 120, pl. i, f. 2. [Cited by Norman, *Ann. & Mag. Nat. Hist.*, Ser. VI, vol. vi, p. 337.]
1877. *Neritostoma vetula*, Klein : JOUSSEAUME, *Bull. Soc. Zool. France*, ii, p. 73, pl. i, f. 6 & 8.
1877. *Neritostoma Mabilii* : JOUSSEAUME, *t. c.*, p. 99, pl. i, f. 9 & 10.
1877. *Neritostoma debilis* : JOUSSEAUME, *t. c.*, p. 101, pl. i, f. 11 & 12. [Non Morelet in Pfeiffer, *Mon. Helic. viv.*, iv, 1859, p. 811.]
1877. *Succinea parvula*, L. Pascal : BAUDON, *Journ. de Conchyl.*, xxv, p. 144, pl. vii, f. 1. [This is the *S. putris*, var.  $\mu$ , *parvula*, Pascal, *Arch. Miss. Scient.*, Ser. III, tom. i, 1873, p. 348.]
- 1877, }  
July. f } *Succinea Milne-Edwardsi* : BOURGUIGNAT, *Aperç. esp. Franç. Succinea*, p. 1.
- 1877, }  
July. f } *Succinea xanthelea* : BOURGUIGNAT, *o. c.*, p. 4.
- 1877, }  
July. f } *Succinea olivula* [Baudon] : BOURGUIGNAT, *o. c.*, p. 8. [Non Baudon.]
- ?1877, }  
July. f } *Succinea Moreleti* [Baudon] : BOURGUIGNAT, *o. c.*, p. 8. [Described by Baudon as a variety of *Baudoni*.]

- ?1877, } *Succinea Bourguignati*, J. Mabile [MS.]: BOURGUIGNAT,  
 July. } o. c., p. 22.  
 ?1877, } *Succinea haliotidæa*: BOURGUIGNAT, o. c., p. 23.  
 July. }  
 1879. *Succinea Pascali*, Baudon: BAUDON, *Journ. de Conchyl.*,  
 xxvii, p. 292, pl. xi, f. 4.

[According to GERMAIN (*Moll. France*, ii, p. 223) *S. Renci*,  
 Locard, is also a synonym of this species.]

First recorded as British in 1674, by M. Lister (*Phil.*  
*Trans.*, ix, p. 99, pl. ii, f. 18).

British Distribution in Time: Pliocene to Recent.

## 2. *Succinea pfeifferi*, Rossmässler.

Etym. :—Named in honour of the celebrated malacologist  
 C. Pfeiffer.

1789. *Helix angusta*, n. sp.: STUDER, in Coxe, *Trav. in*  
*Switzerld.*, iii, p. 388. [*Nom. nud.*]  
 1805. *Succinea amphibia*, var.  $\gamma$ : DRAPARNAUD, *Hist. Moll.*  
*France*, p. 58, pl. iii, f. 23.  
 1820. *Tapada succinea*: STUDER, *Naturw. Anz. Allg. Schweiz.*  
*Gesell.*, iii, p. 86. (In reprint, "Syst.  
 Verzeichn.," p. 11.)  
 1821. *Amphibina putris*, var.  $\epsilon$ , *succinea*: HARTMANN, *Neue*  
*Alpina*, i, p. 247.  
 1821. *Amphibina putris*, var.  $\zeta$ , *fulva*: HARTMANN, l. c.  
 1829. *Amphibulina putris*, var. *fulva*: HARTMANN, *Sturm's*  
*Deutschl. Fauna*, vi, hft. 8, no. 6.  
 ?1830, } *Succinea calycina*, m.: MENKE, *Synop. Moll.*, ed. 2,  
 Apr. } p. 14. [*Teste Pfeiffer.*]  
 1830. *Succinea amphibia*, var.  $\gamma$ , Drap.: } ALDER, *Trans. Nat.*  
 1830. *Succinea oblonga*, Bean MS.: } *Hist. Soc.*  
*Northumb.*, i, p. 31.  
 1831. *Succinea oblonga*, Drap.: TURTON, *Manual*, p. 92, f. 74.  
 [*Non Drap.*]  
 1835, } *Succinea Pfeifferi*, mihi: ROSSMÄSSLER, *Icon.*, i, hft. 1,  
 Apr. } p. 92, f. 46.  
 1835. *Succinea Levantina*: DESHAYES, *Expéd. Scient. Morée*,  
 iii, pt. 1, *Moll.*, p. 170, pl. xix, f. 25-27.  
 1837. *Succinea gracilis*, Alder: ALDER, *Mag. Zool. Bot.*, ii,  
 p. 106.  
 1840, } *Succinea Pfeifferi*, Rossm.: GRAY, *Turton's Manual*,  
 Apr. } new ed., p. 179, pl. vi, f. 74.  
 Post }  
 Sept. } *Succinea gracilis*, var.: BROWN, *Illust. Conch. Brit.*,  
 1840. } ed. 2, p. 35, pl. xviii, f. 21, 21.  
 1845, } *Succinea gracilis*, var.: BROWN, *Illust. L. & F.-W. Conch.*  
 Feb. } *Brit.*, p. 31, pl. iv, f. 22 & 23.  
 1845, } *Succinea virescens*, spec. nov.: MORELET, *Descript.*  
 July. } *Moll. Port.*, p. 53, pl. v, f. 3.

1847. *Helix pulula*, Ch. : NARDO, *Sinon. Species Chiareghini*, col. 93.
- 1852, } *Succinea putris*, var. : FORBES & HANLEY, *Brit. Moll.*,  
Apr. } iv, p. 133.
- 1852, } *Succinea ochracea*, De Betta : BETTA, *Malac. Valle di*  
Oct. } *Non*, i, p. 31, f. 1a & b. [*Teste Moquin-*  
Tandon.]
- 1855, } *Succinea pfeifferi*, Rossm. : MOQUIN-TANDON, *Hist. Moll.*  
Sept. } *France*, ii, p. 59, pl. vii, f. 8-31.
- 1855, } *Succinea (Tapada) Pfeifferi*, Rm. : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 118.
1857. *Succinea putris*, var.  $\alpha$  : GRAY, *Turton's Manual*, new ed., p. 147, pl. vi, f. 74.
1862. *Succinea elegans*, Risso [pars] : JEFFREYS, *Brit. Conch.*, i, p. 154.
1863. *Succinea elegans*, Risso [pars] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 43.
1864. *Succinea (Amphibina) pfeifferi*, Rm. : MÖRCH, *Synop. Moll. Daniæ*, p. 33.
1877. *Neritostoma pfeifferi*, Rossm. : JOUSSEAUME, *Bull. Soc. Zool. France*, ii, p. 102, pl. i, f. 15 & 17.
- ?1877. *Neritostoma hordacea* : JOUSSEAUME, *t. c.*, p. 105, pl. i, f. 20. [Fry.]
- ?1877. *Succinea pyrenaica* : BOURGUIGNAT, *Aperç. espèces Franç. Succinea*, p. 12.
1877. *Succinea Mortilleti* : BOURGUIGNAT, *o. c.*, p. 12. [Described by Stabile, 1864, as a var. of *pfeifferi*.]
- ?1877. *Succinea Dupuyana* : BOURGUIGNAT, *o. c.*, p. 18.
- ?1877. *Succinea sublongiscata* : BOURGUIGNAT, *o. c.*, p. 21.
1879. *Succinea contortula*, Baudon : BAUDON, *Journ. de Conchyl.*, xxvii, p. 294, pl. x, f. 1.
1884. *Succinea (Tapada) oblonga*, var. *Schumacheri*, n. v. : ANDREÆ, *Abhandl. Geol. Spezialkarte Elsass-Lothringen*, iv, hft. 2, p. 67, pl. ii, f. 96-100.
1899. *Succinea Schumacheri*, Andreæ : WÜST, *Zeitschr. f. Naturw.*, lxxi, p. 442.

[GERMAIN (*Moll. France*, ii, p. 224) cites as synonyms :—*S. esicha*, Letourneux; and *S. Malafossi*, Bourg.]  
First recorded as British in 1830, by Alder. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

### 3. *Succinea elegans*, Risso.

Etym. :—Lat. *elegans*, elegant.

1819. *Succinea Mülleri*, var.  $\beta$  : LEACH, *Moll. Brit. Synop.* (proofs), p. 78.
1821. *Amphibina putris*, var.  $\eta$ , *elongata* : HARTMANN, *Neue Alpina*, i, p. 247.



1826. *Succinea elegans* (N) : RISSO, *Hist. Nat. Europ. mérid.*,  
iv, p. 59.
1827. *Succinea oblonga*, Drap. : BROWN, *Illust. Conch. Brit.*,  
ed. 1, pl. xlii, f. 34 & 35.
1829. *Amphibulina putris*, var. *elongata* : HARTMANN, Sturm's  
*Deutschl. Fauna*, vi, hft. 8, no. 7.
- 1840, } *Succinea Pfeifferi*, var. : GRAY, Turton's *Manual*, new  
Apr. } ed., pl. vi, f. 74\*.
- Post }  
Sept. } *Succinea gracilis*, Alder : BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 35, pl. xiv, f. 34 & 35. [Non Alder.]
1843. *Succinea Corsica*, Shuttl. : SHUTTLEWORTH, *Mittheil.*  
*Naturf. Gesell., Bern.*, 1843, p. 13.
- 1845, } *Succinea gracilis*, Alder : BROWN, *Illust. L. & F.-W.*  
Feb. } *Conch. Brit.*, p. 30, pl. iv, f. 26 & 27.
- 1845, } *Succinea longiscata*, spec. nov. : MORELET, *Descript.*  
July. } *Moll. Port.*, p. 51, pl. v, f. 1.
- 1852, } *Succinea Mülleri*, var.  $\beta$  : LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 58.
- 1852, } *Succinea putris*, var. *gracilis* : FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, iv, p. 133, pl. cxxxi, f. 3.
- 1855, } *Succinea longiscata*, Morel. : MOQUIN-TANDON, *Hist.*  
Sept. } *Moll. France*, ii, p. 59, pl. vii, f. 6 & 7.
- 1855, } *Succinea (Tapada) elegans*, Risso : PFEIFFER, *Malak.*  
Nov. } *Blätt.*, ii, p. 118.
1857. *Succinea putris*, var.  $\alpha$  : GRAY, Turton's *Manual*, new  
ed., p. 147, pl. vi, f. 74\*.
1862. *Succinea elegans*, Risso [pars] : JEFFREYS, *Brit. Conch.*,  
i, p. 153; v, pl. viii, f. 5.
1863. *Succinea elegans*, Risso [pars] : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 43, figs.
1864. *Succinea (Neritostoma) gracilis*, Alder : MÖRCH, *Synop.*  
*Moll. Danicæ*, p. 33.
1877. *Succinea putris*, var. *olivula*, nob. : BAUDON, *Journ. de*  
*Conchyl.*, xxv, p. 136, pl. vi, f. 6.
1879. *Succinea stagnalis*, Gassies : BAUDON, *o. c.*, xxvii, p. 289,  
pl. xi, f. 1. [Non Gassies = *putris*.]
1884. *Succinea (Amphibina) elegans*, Risso : CLESSIN, *Deutsch.*  
*Exc. Moll. Fauna*, ed. 2, p. 347, f. 202.

[GERMAIN (*Moll. France*, ii, p. 223) states that *S. itala*,  
Jan., is a synonym.]

First recorded as British in 1819, by W. Leach, as *S.*  
*mülleri*, var.  $\beta$ . (See ref. above.)

British Distribution in Time : Pliocene to Recent.

#### 4. *Succinea arenaria*, Bouchard-Chantereaux.

Etym. :—Lat. *arenaria*, pertaining to sand.

1833. *Succinea oblonga* : JEFFREYS, *Trans. Linn. Soc.*, xvi,  
p. 505. [Non Draparnaud.]

1837. *Succinea arenaria*, Nob. : BOUCHARD-CHANTEREAUX, *Mém. Soc. Agric. Boulogne*, Sér. II, tom. i, p. 190.
1877. *Succinea oblonga*, var. *arenaria*, Bouche-Cantraine [sic] : CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 291.
1877. *Succinea Saint-Simonis* : BOURGUIGNAT, *Aperç. espèces Franç.*, *Succinea*, p. 28.
1877. *Succinea chroabsinthina* : BOURGUIGNAT, *o. c.*, p. 29.
1884. *Succinea (Lucena) oblonga*, var. *arenaria*, Bouche-Cantraine [sic] : CLESSIN, *Deutsch. Excur. Moll. Fauna*, ed. 2, p. 351.
1885. *Succinea (Lucena) arenaria*, Bouch. : WESTERLUND, *Fauna Paläarct. Region*, v, p. 16.

First recorded as British in 1833, by J. G. Jeffreys.  
(See ref. above.)

British Distribution in Time : Recent.

#### 5. *Succinea oblonga*, Draparnaud.

Etym. :—Lat. *oblongus*, oblong.

1789. *Helix elongata*, n. sp. : STUDER, in Coxe, *Trav. in Switzerld.*, iii, p. 388. [*Nom. nud.*]
1801. *Succinea oblonga* : DRAPARNAUD, *Tabl. Moll. France*, p. 56.
1803. *Helix buccinum* : SCHRANK, *Fauna Boica*, p. 271. [*Teste Fitzinger.*]
1805. *Succinea oblonga* : DRAPARNAUD, *Hist. Moll. France*, p. 59, pl. iii, f. 24 & 25.
- 1805, } *Amphibulima oblonga* : LAMARCK, *Ann. Mus. Hist. Nat.*  
Aug. } *Paris*, vi, p. 306.
1820. *Tapada oblonga* : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 86. (In reprint, "*Syst. Verzeichn.*," p. 12.)
1821. *Helix (Cochlohydra) elongata*, nobis : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 31 (June ed., p. 27); *Hist.*, pl. xi, f. 1-3.
1821. *Amphibina oblonga*, Drap. : HARTMANN, *Neue Alpina*, i, p. 248.
1821. *Succinea oblonga*, Drap. : C. PFEIFFER, *Naturg.-Deutsch., Moll.*, i, p. 68, pl. iii, f. 39.
1829. *Amphibulina oblonga* : HARTMANN, *Sturm's Deutschl. Fauna*, vi, hft. 8, no. 8.
1830. *Succinea oblonga*, Drap. : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 325.
- 1840, } *Succinea oblonga*, Drap. : GRAY, *Turton's Manual*, new  
Apr. } ed., p. 180, pl. vi, f. 139.
- Post } *Succinea oblonga*, Draparnaud : BROWN, *Illust. Conch.*  
Sept. } *Brit.*, ed. 2, 35. [The figure cited, pl. xviii,  
1840. } f. 21, is not this species.]

- 1845, } *Succinea oblonga*, Drapernand: BROWN, *Illust. L. &*  
 Feb. } *F.-W. Conch. Brit.*, p. 31, pl. iv, f. 19.
- 1845, } *Succinea abbreviata*, spec. nov.: MORELET, *Descript.*  
 July. } *Moll. Portugal*, p. 54, pl. v, f. 4.
1852. *Succinea oblonga*, Draparnaud: FORBES & HANLEY,  
*Brit. Moll.*, iv, p. 137, pl. cxxxii, f. 6 & 7.
- 1855, } *Succinea oblonga*, Drap.: MOQUIN-TANDON, *Hist. Moll.*  
 Sept. } *France*, ii, p. 61, pl. vii, f. 32 & 33.
- 1855, } *Succinea (Tapada) oblonga*, Drap.: PFEIFFER, *Malak.*  
 Nov. } *Blätt.*, ii, p. 118.
1855. *Succinea humilis*, Drouët ined.: DROUËT, *Mém. Soc.*  
*Roy. Liège*, x, p. 173. [Drouët in 1867 cites  
 as fig. Stabile, *Atti Soc. Ital. Sci. Nat.*, vii,  
 1864, pl. i, f. 4.]
1856. *Succinea gutturosa*, Kstr.: KÜSTER, *Ber. Naturf. Bam-*  
*berg*, iii, p. 74.
1856. *Succinea amœna*, Kstr.: KÜSTER, *t. c.*, p. 75.
1856. *Succinea agonostoma*, Kstr.: KÜSTER, *t. c.*, p. 75.
1857. *Succinea oblonga*, Drap.: GRAY, *Turton's Manual*, new  
 ed., p. 148, pl. vi, f. 139.
1862. *Succinea oblonga*, Draparnaud: JEFFREYS, *Brit. Conch.*,  
 i, p. 154; v, pl. viii, f. 6.
1863. *Succinea oblonga*, Draparnaud: REEVE, *L. & F.-W.*  
*Moll. Brit. Is.*, p. 44, figs.
1869. *Succinea valcourtiana*: BOURGUIGNAT, *Mém. Soc. Sci.*  
*Nat. Cannes*, i, p. 47.
1875. *Succinea (Amphibina) oblonga*, Draparnaud: SAND-  
 BERGER, *Land- & Süßw. Conch. Vorwelt*,  
 p. 790, pl. xxxiii, f. 29; xxxv, f. 17; xxxvi,  
 f. 31.
- ?1877. *Succinea Fagotiana*: BOURGUIGNAT, *Aperç. espèces*  
*Franç., Succinea*, p. 25.
1877. *Succinea brachya*: BOURGUIGNAT, *o. c.*, p. 32.
1884. *Succinea (Lucena) oblonga*, Draparnaud: CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, ed. 2, p. 349,  
 f. 206.

First recorded as British in 1830, by J. G. Jeffreys.  
 (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

Class : PELECYPODA.

Order : EULAMELLIBRANCHIA.

(Sub-order : SUBMYTILACEA.)

Fam. : DREISSENSIIDÆ.

Genus : 1. DREISSENSIA, Beneden (em.).

Etym. :—Named in honour of M. Dreissens of Mazeyk.

Type :—*Mytilus polymorphus*, Pallas.(*Mytilus*, *Pinna*, *Congerina*, vett. auctt.)

- 1835, } *Dreissena* : BENEDEN, *Bull. Acad. Bruxelles*, ii, p. 25.  
Jan. }
- 1835, } *Dreissena* : DUMORTIER, *Bull. Acad. Bruxelles*, ii, p. 44.  
Feb. }
- 1835, } *Dreissenia* : *Bull. Acad. Bruxelles*, ii, Index, p. iii.  
Apr. }
- 1835, } *Dreissena* : BENEDEN, *Ann. Sci. Nat.*, Sér. II (Zool.),  
Apr. } iii, p. 193. (Descript., p. 210.)
- 1835, } *Tichogonia* : ROSSMÄSSLER, *Icon.*, i, p. 112.  
Apr. }
1835. *Dithalmia* : JAY, *Cat. Shells*, p. 19.
1836. *Dythalmia* : JAY, *o. c.*, ed. 2, p. 25. [In ed. 3, 1839,  
p. 4, Jay states in answer to G. B. Sowerby  
that "M. Mühlfield is the author of *Dythal-*  
*mia Danubii*"; but this cannot be verified.]
- 1837, } *Mytilinia* : CANTRAINE, *Bull. Acad. Bruxelles*, iv, p. 111.  
Mar. } (Reprinted with additions in *Ann. Sci. Nat.*,  
Sér. II (Zool.), vii, May, 1837.)
1840. *Dreistena* [err. typ.] : BOUE, *Turquie d'Europe*, i, p. 477.
1842. *Dreissina* : G. B. SOWERBY (II), *Conch. Manual*, ed. 2,  
p. 141.
1848. *Dreissenia* : BRONN, *Index Palæont.*, abth. i, A, *Nomencl.*  
*Palæontol.*, p. 437.
1861. *Dreyssena*, Van Beneden : HENSCHÉ, *Schrift. phys.-ökon.*  
*Gesell. Königsberg*, ii, p. 89.
1862. *Dreissensia* : BRONN, *Klass. & Ord. Thier-Reichs*, iii,  
abth. 1, p. 478.
1863. *Dreissenia* : DEWALQUE, *Bull. Soc. Géol. France*, Sér. II,  
tom. xx, p. 797.
1873. *Mytilomya*, Cant. : MARSCHALL, *Nomencl. Zool.*, p. 128.  
[Non Cantrain, who only used the vernacular  
"Les Mytilomyes."]
1895. *Dreyssentia*, v. Beneden : BERNARD, *Elém. Paléont.*,  
p. 561. [Non Beneden.]
1909. *Dreyssensia* : HONIGMANN, *Zeitschr. f. Naturw.*, lxxxi,  
p. 300.

1. *Dreissensia polymorpha* (Pallas).

Etym. :—Gr. *πολύς*, many + *μορφή*, form.

1771. *Mytilus polymorphus* : PALLAS, *Reise Russ. Reichs*, i, p. 478.
- \*1780. *Pinna fluviatilis* : SANDER, *Vaterländ. Bemerk. Alle Thl. Naturgeschichte*. [Fide Brusina, *Journ. de Conchyl.*, liii, 1906, p. 277.]
1791. *Mytilus polymorphus* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3363, no. 57.
- 1825, } *Myt? Volgensis* : GRAY, *Ann. Phil.*, xxv (N.S. ix),  
Feb. } p. 139.
- \*1825, } *Mytilus Hagenii* : BAER, *Inst. Solemn. C. G. Hagen*, p. 11.  
Oct. } [Fide Index Animalium MS. Notes in Nat. Hist. Mus. The name was republished in *Isis* [xviii], col. 526. Also in Férussac's *Bull. Sci. Nat.*, viii, 1826, pp. 141–42, whence it has been misquoted as "*Mytilus Chemnitzii*, Fér."]
1828. *Mytilus Wolgae*, Chemnitz : C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 67. [The reference commonly cited as of Chemnitz, xi, p. 256, f. 2038, is inadmissible, the work at that time not being binominal.]
1828. *Mytilus Volgensis* : WOOD, *Suppt. Index Test.*, p. 8, pl. ii, f. 6.
- \*1834. *Mytilus arca* : KICKX, *Descript. nov. esp. Moule fluv.*, p. ?.
- 1835, } *Dreissena polymorpha* : BENEDEN, *Bull. Acad. Bruxelles*,  
Jan. } ii, p. 25.
- 1835, } *Dreissena polymorpha* : DUMORTIER, *Bull. Acad.*  
Feb. } *Bruxelles*, ii, p. 44.
- 1835, } *Dreissena polymorpha*, nob. : BENEDEN, *Ann. Sci. Nat.*,  
Apr. } Sér. II (Zool.), tom. iii, p. 210.
- 1835, } *Tichogonia Chemnitzii*, mihi : ROSSMÄSSLER, *Icon.*, i,  
Apr. } p. 113, f. 69.
1835. *Dithalmia Danubii* : JAY, *Cat. Shells*, p. 19.
1836. *Dythalmia Danubii* : JAY, *o. c.*, ed. 2, p. 25. [In ed. 3, 1839, p. 4, Jay states in answer to G. B. Sowerby that "M. Mühfield is the author of *Dythalmia Danubii*"; but this cannot be verified.]
1837. *Mytilina polymorpha*, nob. : CANTRAINED, *Bull. Acad. Bruxelles*, iv, p. 114.
- 1840, } *Dreissena polymorpha*, Pallas : GRAY, in Turton's  
Apr. } *Manual*, new ed., p. 300, fig.
- 1840, } *Mytilus Toreyi*, Stenz : GRAY, *o. c.*, p. 301, in synonym.  
Apr. }
- Post } *Dreissena polymorpha*, Van Beneden : BROWN, *Illust.*  
Sept. } *Conch. Brit.*, ed. 2, p. 76, pl. xxix, f. 4–9.
1840. }

1842. *Dreissina polymorpha*, auct.: G. B. SOWERBY (II), *Conch. Manual*, ed. 2, p. 141, fig. 159.
1844. *Dreissena*, or *Mytilus Polymorphois*: LOUDON, *Glimpses of Nature*, p. 173, figs.
1845. *Dreissena polymorpha*, Van Beneden: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 98, pl. x, f. 7-12, xxvii, f. 5 & 6.
1849. *Dreissena polymorpha*, Pallas: FORBES & HANLEY, *Brit. Moll.*, ii, p. 165, pl. xlii, f. 4 & 5.
1850. *Dreissena Danubii*, Mühlf.: JAY, *Cat. Shells*, ed. 4, p. 78.
1851. *Congeria Chemnitzii*, Fér.: BOLL, *Arch. Ver. Freunde Mecklenb.*, v, p. 80. [Non Férussac.]
1855. *Dreissenia Chemnitzii*, Mytilus Fér.: DUNKER, *Commentatio*, p. 13. [Non Férussac.]
1855. *Congeria polymorpha*, Pallas: REIBSCH, *Allg. Deutsch. Naturh. Zeitung*, N.F. i, p. 432.
- 1856, } *Dreissena fluviatilis*: BOURGUIGNAT, *Rev. & Mag. Zool.*,  
Feb. } Sér. II, tom. viii, p. 76. (*Amén. Malac.*,  
i, p. 161.)
- 1856, } *Dreissena polymorpha*, Pall.: MOQUIN-TANDON, *Hist.*  
Apr. } *Moll. France*, ii, p. 598, pl. liv, f. 1-19.
1857. *Dreissena polymorpha*, Pallas: GRAY, in Turton's *Manual*, new ed., p. 260, f. 63.
1861. *Dreysena Chemnitzii*, Rossm.: HENSCHKE, *Schrift. phys.-ökon. Gesell. Königsberg*, ii, p. 89.
1862. *Dreissena polymorpha*, Pallas: JEFFREYS, *Brit. Conch.*, i, p. 47; v, pl. iii, f. 3.
1863. *Dreissena polymorpha*, Pallas: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 209, figs.
1886. *Dreissensia polymorpha*, Pallas: FISCHER, *Manuel Conchyl.*, p. 972.
1909. *Dreysensia polymorpha*, Pallas: HONIGMANN, *Zeitschr. f. Naturw.*, lxxxix, p. 300.

[LOCARD (*Rev. Suisse Zool.*, i, pp. 137-176) described and figured the following manuscript species of Bourguignat, which are founded on mere varieties: —*Dreissensia complanata*, *ventrosa*, *sulcata*, *tumida*, *Serraini*, *eximia*, *Westerlundi*, *curta*, *Arnoaldi*, *Bedoti*, *occidentalis*, *Locardi*, *Belgrandi*, *magnifica*, *recta*, *Lutetiana*, and *paradoxa*.]

[\* \* *Mytilus lineatus*: WAARDENBURG, *Comment. Moll. Belg.*, 1827 (afterwards issued in *Ann. Acad. Lugd.-Bat.*, 1826-7 (1828)), p. 38, though frequently cited does not appear to be this species.]

First recorded as British in 1824, by J. De C. Sowerby (*Linn. Trans.*, iv, 1825, p. 585), having been found in the Surrey Commercial Docks by a Mr. J. Bryant.  
British Distribution in Time: Holocene and Recent.



## Fam. : CYRENIDÆ.

Genus : 1. **CORBICULA**, Megerle von Mühlfeld.Etym. :—Lat. *corbicula*, a little basket.Type :—*Tellina fluminalis*, Müller.( *Tellina*, *Cyclas*, *Cyrena*, vett. auctt.)

1811. *Corbicula* : MEGERLE VON MÜHLEFELD, *Mag. Gesell. Naturf. Freunde Berlin*, v, p. 56.
1818. *Cyanocyclas*, subg. 2 of *Cyclas* : FÉRUSAC, MS., in Blainville, *Dict. Sci. Nat.*, xii, p. 280.
- 1818, } *Cyrena* [pars] : LAMARCK, *Hist. Anim. s. Vert.*, v, p. 561  
July. } [err. typ. 551].
1838. *Cyrene* : SCHLÜTER, *Kurz. syst. Verzeichn. Conch. Samml.*, p. 34.
1846. *Cyrenocyclas*, as a correction of *Cyanocyclas* : AGASSIZ, *Nomenclat. Zool., Mollusca*, p. 26.

1. †*Corbicula fluminalis* (Müller).Etym. :—Lat. *fluminalis*, pertaining to a river.

1774. *Tellina fluminalis* : MÜLLER, *Verm. Hist.*, ii, p. 205.
1791. *Tellina fluminalis*, Müll. : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3242, no. 79.
1801. *Cyclas euphratica*, N. : LAMARCK, *Syst. Anim. s. Vert.*, p. 124.
1811. *Corbicula fluminalis*, Linn. (Gmel. ed.) : MEGERLE VON MÜHLEFELD, *Mag. Gesell. Naturf. Freunde Berlin*, v, p. 56.
1817. *Tellina fluminalis*, Müll. : DILLWYN, *Cat. Shells*, i, p. 106.
1818. *Cyclas* (*Cyanocyclas*) *fluminalis*, Müll. : FÉRUSAC, MS., in Blainville, *Dict. Sci. Nat.*, xii, p. 280.
- 1818, } *Cyrena orientalis* : LAMARCK, *Hist. Anim. s. Vert.*, v,  
July. } p. 562 [err. typ. 552].
- 1818, } *Cyrena cor* : LAMARCK, *l. c.*  
July. }
- 1818, } *Cyrena fuscata* : LAMARCK, *l. c.*  
July. }
1823. *Cyrena consobrina* : CAILLIAUD, *Voy. à Meroë*, iv, pl. lxi, f. 10, 11 ; Text, 1827, p. 263, as “(d'Olivier).”
1834. *Cyrena trigonula* (Wood) : S. V. WOOD, *Mag. Nat. Hist.*, vii, p. 275, f. 45.
1835. *Tellina fluviatilis*, Müller : DESHAYES, in Lamarck, *Hist. Anim. s. Vert.*, ed. 2, vi, p. 273. [Non Müller.]
- ?1836. *Cyrena Gemmellarii*, mihi : PHILIPPI, *Enum. Moll. Sicil.*, i, p. 39, pl. iv, f. 3.

1833. *Cyrena Duchastelii*, nob.: NYST, *Bull. Acad. Sci. Belgique*, v, p. 114, pl. i, f. 1-4.
1853. *Cyrena fluminalis*, Müller: BOURGUIGNAT, *Cat. Moll. Sauley*, p. 79.
1854. *Cyrena fluviatilis*, Müll.: MOUSSON, *Mitthl. Naturf. Gesell. Zürich*, iii, p. 400. [Non Müller, teste Martens, 1864.]
1854. *Cyrena crassula*, MSS.: MOUSSON, *t. c.*, p. 401.
1857. *Corbicula consobrina*, Caillaud: H. & A. ADAMS, *Genera Moll.*, ii, p. 447.
1861. *Cyrena cor*, Lam.: MOUSSON, *Vierteljahrschr. Naturf. Gesell. Zürich*, vi, p. 153.
1864. *Cyrena (Corbicula) fluminalis*, Müll.: MARTENS, *Zeitschr. Deutsch. Geol. Gesell.*, xvi, p. 348 (fig. p. 345).
1866. *Cyrena (Corbicula) cor*, Lam.: MARTENS, *Malak. Blätt.*, 1866, p. 13.
1866. *Cyrena (Corbicula) consobrina*, Caillaud: MARTENS, *t. c.*, p. 14.
1866. *Cyrena (Corbicula) Friwaldskyana*, Zelebor Mscr.: MARTENS, *t. c.*, p. 14.
1868. *Cyrena Sauleyi*: BOURGUIGNAT, *Moll. nouv. et lit.*, p. 315, pl. xlv, f. 6-9.
1871. *Cyrena (Corbicula) fluminalis*, Müll.: MARTENS, *Malak. Blätt.*, 1871, p. 61, pl. i, f. 12-14.
1874. *Cyrena (Corbicula) Sauleyi*, Bourg.: MARTENS, *Vorderasiat. Conchyl.*, p. 69.
1874. *Corbicula Zelebori*, Jick.: JICKELI, *Nova Acta Acad. Cæs. Leop.-Carol.*, xxxvii, no. 1, p. 290, pl. xi, f. 13 a-c.
1883. *Corbicula Sauleyi*, Bourg.: LOCARD, *Arch. Mus. Lyon*, iii, p. 221.
1890. *Corbicula cor*, Lam.: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 3.
1897. *Corbicula maltzaniana*: ROLLE & KOBELT, in ROSSMÄSSLER'S *Icon.*, Suppt., Bd. i, p. 65, pl. xxvi, f. 4 & 5. [For *C. fluminalis*, var. of Clessin.]

[Many names were given by Bourguignat to worthless varieties of this species, some of which were published by Locard (*Arch. Mus. Lyon*, iii, 1883), by Germain (*Bull. Mus. Hist. Nat. Paris*, xii, 1906) and by Pallary (*Mém. Inst. Egypt.*, vi, 1909). A list of these is given by Germain in his "Moll. terr. & fluv. Syrie" (*Voy. Zool. Gadcau de Kerville*, iii), ii, 1922, pp. 102-4.]

First recorded as British in 1834, by S. V. Wood (*Mag. Nat. Hist.*, vii, p. 275).

British Distribution in Time: Pliocene and Pleistocene.

Fam. : SPHÆRIIDÆ.

Genus : 1. SPHÆRIUM, Scopoli.

Etym. :—Gr. σφαιρίον, a ball.

Type :—*Tellina cornea*, Linnæus.(*Tellina*, *Chama*, *Cyclas*, *Cardium*, vett. auctt.)

1777. *Sphærium* : SCOPOLI, *Introd. Hist. Nat.*, p. 397.  
 1798. *Cyclas* [pars] : LAMARCK, *Tabl. Ency.*, ii, pl. cccii & ccciii.  
 1807. *Musculium* : LINK, *Beschreib. Natural.-Samml. Univ. Rostock*, iii, p. 152.  
 1811. *Cornea* : MEGERLE, *Mag. Gesell. Naturf. Freunde Berlin*, v, p. 57.  
 1815. *Cycladea* : RAFINESQUE, *Analyse Nature*, p. 146.  
 1818. *Corneocyclas*, subg. of *Cyclas* : (FÉRUSSAC in litt.) BLAINVILLE, *Dict. Sci. Nat.*, xii, p. 278. [*Nom. nov.* for *Cornea*, Megerle.]  
 1820. *Phymesoda*, sect. 2 of *Cyclas* [pars] : RAFINESQUE, *Ann. Gén. Sci. Phys.*, v, p. 319.  
 1820. *Amesoda*, sect. 3 of *Cyclas* : RAFINESQUE, *l. c.* [Misprinted on the same page *Ameroda*.]  
 1854. *Pisum* ; Megerle von Mühlfeldt : BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. vi, p. 85. (*Amén. Malac.*, i, 1856, p. 30.) [*Non* Megerle, whose example was a fossil Brachiopod, or a rolled Pecten shell.]  
 1854. *Eupera*, a sect. of *Pisidium* : BOURGUIGNAT, *t. c.*, p. 85. (*t. c.*, p. 30.)  
 1854. *Cyrenastrum* } Sects. of *Sphærium* : BOURGUIGNAT,  
 1854. *Sphæriastrum* } *t. c.*, p. 668. (*t. c.*, p. 66.)  
 1855. *Securilla*, sect. 3 of *Cyclas* : DROUËT, *Mém. Soc. R. Liège*, x, p. 164.  
 1872. *Calyculina* : CLESSIN, *Malak. Blätt.*, xix, p. 159.  
 1872. *Limosina* : CLESSIN, *t. c.*, p. 160. [= *Eupera*, Bourg.]  
 1873. *Corncola*, sect. 3 of *Sphærium* : CLESSIN, in Westerlund, *Fauna Moll. Seccia*, pt. ii, p. 503. [*Non* Held, 1837.]

1. *Sphærium rivicola* (Leach).Etym. :—Lat. *rius*, a brook + *colo*, inhabit.

- ?1778. *Cardium nux* [pars] : DACOSTA, *Test. Brit.*, p. 173.  
 1799. *Cardium amnicum*, Müll. : PULTENEY, *Cat. Dorsct.*, p. 31. [*Non* Müller.]  
 1801. *Cyclas cornea*, a : DRAPARNAUD, *Tabl. Moll. France*, p. 105.  
 1803. *Cardium corneum*, var. : MONTAGU, *Test. Brit.*, p. 86.  
 1805. *Cyclas cornea*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 128, pl. x, f. 1-3.

1807. *Tellina cornea*, var.  $\beta$ : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 59.
1813. *Cardium amnicum*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 32.
- 1818, } *Cyclas rivicola*, Leach: LAMARCK, *Hist. Anim. s. Vert.*,  
July. } v, p. 558.
1818. *Cyclas (Cornocyclas) rivicola*, Leach: (FÉRUSSAC in litt.) BLAINVILLE, *Dict. Sci. Nat.*, xii, p. 279.
1821. *Cyclas rivicola*, Lam.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 121, pl. v, f. 3-5.
1823. *Tellina cornea*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 408.
1827. *Cyclas cornea*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xvii, f. 12.
1831. *Cyclas rivicola*: TURTON, *Manual*, p. 12, f. 1.
- 1840, } *Cyclas rivicola*, Lam.: GRAY, in Turton's *Manual*, new  
Apr. } ed., p. 279, pl. i, f. 1.
- 1840, } *Cyclas aquata*, Sheppard MSS. *Brit. Mus.*: GRAY, *o. c.*,  
Apr. } p. 280, in synonym.<sup>1</sup>
- Post } *Cyclas rivicola*, Lamarck: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 93, pl. xxxix, f. 16-18.
1840. } *Cyclas rivicola*, Lamarck: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 93, pl. xxxix, f. 16-18.
1843. *Cyclas rivalis*: A. BRAUN, *Amtl. Ber. xx. Versamml. Deutsch. Naturf. Mainz*, 1842, p. 144. [*Teste Kreglinger and Sandberger.*]
1845. *Cyclas rivicola*, Lamarck: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 116, pl. xxiv, f. 1-3.
1849. *Cyclas rivicola*, Leach: FORBES & HANLEY, *Brit. Moll.* ii, p. 111, pl. xxxvii, f. 1 & 2.
1852. *Cyclas rivicola*: LEACH, *Moll. Brit. Synop.*, p. 289.
- 1853, } *Sphærium riviculum*, Leach [*sic*]: MÖRCH, *Cat. Conch.*  
Apr. } *Yoldi*, ii, p. 30.
- 1853, } *Sphærium rivicola*: BOURGUIGNAT, *Rev. & Mag. Zool.*,  
Aug. } Sér. II, tom. v, p. 345. (*Amén. Malac.*, i, 1856, p. 6.)
1854. *Sphærium (Sphæriastrum) rivicola*: BOURGUIGNAT, *o. c.*, tom. vi, p. 668. (*t. c.*, p. 66.)
1856. *Cyclas rivicola*, Leach: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 590, pl. lii, f. 47-50, liii, f. 1-16.
1857. *Cyclas rivicola*, Leach: GRAY, in Turton's *Manual*, new ed., p. 252, pl. i, f. 1.
1862. *Sphærium rivicola*, Leach: JEFFREYS, *Brit. Conch.*, i, p. 7; v, pl. i, f. 2.
1863. *Cyclas rivicola*, Leach: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 237, figs.
1865. *Cyclas rivularia*: J. G. WOOD, *Common Shells of the Seashore*, p. 66.

<sup>1</sup> In 1851 (*List Brit. Anim. in Brit. Mus.*, vii, p. 19) Gray transferred this as "*Tellina aquata*, Sheppard" to the synonymy of *S. Corneum*.

1890. *Spharium (Cyclas) rivicola* (Leach) Lam. : WESTERLUND, *Fauna Paläarct. Region*, vii, p. 6.

First recorded as British in 1681, by M. Lister (*Hist. Anim. Angl.*, Append., p. 14).

British Distribution in Time : Cromerian to Recent.

2. †**Spharium radleyense**, Kennard & Woodward.

Etym. :—Named after Radley, near Oxford.

1924. *Spharium radleyense*, sp. nov. : KENNARD & WOODWARD, *Quart. Journ. Geol. Soc.*, lxxx, p. 174, pl. ix, f. 7-10.

First recorded as British in 1924 as above.

British Distribution in Time : Pleistocene.

3. †**Spharium bulleni**, Kennard.

Etym. :—Named in honour of the Rev. R. Ashington Bullen.

1911. *Spharium Bulleni*, n. sp. : KENNARD, *Proc. Malac. Soc. Lond.*, ix, p. 325, figs.

First recorded as British in 1911 as above.

British Distribution in Time : Cromerian.

4. **Spharium corneum** (Linné).

Etym. :—Lat. *corneus*, horny.

1758. *Tellina cornea* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 678, no. 57.

1767. *Tellina cornea* : LINNÆUS, *o. c.*, ed. 12, p. 1120, no. 72.

1767. *Chama tellina* : GEOFFROY, *Traité Coq. Paris*, p. 133.

1774. *Tellina rivalis* : MÜLLER, *Verm. Hist.*, ii, p. 202.

1777. *Tellina cornea*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 89; 4to, p. 75, pl. xlix, f. 36.

1777. *Spharium corneum*, Linn. : SCOPOLI, *Introd. Hist. Nat.*, p. 397.

1778. *Cardium nuc.* : DACOSTA, *Test. Brit.*, p. 173, pl. xiii, f. 2.

1791. *Tellina cornea* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3241, no. 76.

- 1799, } *Cyclas cornea*, Lin. : LAMARCK, *Mém. Soc. Hist. Nat.*  
May. } *Paris*, i, p. 84.

1799. *Cardium corneum* : PULTENEY, *Cat. Dorset.*, p. 31.

1801. *Cyclas cornea*, b : DRAPARNAUD, *Tabl. Moll. France*, p. 105.

1803. *Cardium corneum*, Lin. : MONTAGU, *Test. Brit.*, p. 86.

1805. *Cyclas rivalis*, Mull. : DRAPARNAUD, *Hist. Moll. France*, p. 129, pl. x, f. 4 & 5.

1807. *Tellina cornea*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 59, pl. vii, f. 2.

1811. *Cornea communis* [pars]: MEGERLE, *Mag. Gesell. Naturf. Freunde Berlin*, v, p. 57.
1813. *Cardium corneum*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 32.
1817. *Tellina cornea*, Linn.: DILLWYN, *Cat. Shells*, i, p. 104.
1818. *Cyclas (Corneocyclas) cornea*, Drap.: (FÉRUSSAC in litt.) BLAINVILLE, *Dict. Sci. Nat.*, xii, p. 279.
1820. *Cyclas nucleus*: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 93. (In reprint, "Syst. Verzeichn.," p. 29.) [A deformity.]
1821. *Cyclas cornea*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 120, pl. v, f. 1 & 2.
1823. *Tellina pusilla*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 408.
1823. *Cycladites corneus*: KRÜGER, *Geschichte Urwelt*, ii, p. 469. [*Teste BROWN, Index Pal.*, i, p. 371.]
1827. *Cyclas pusilla*, BROWN: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xvii, f. 15.
1831. *Cyclas cornea*: TURTON, *Manual*, p. 13, f. 2.
1832. *Cyclas stagnicola*, Leach MSS.: JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 296, in synonym.
1837. *Cyclas nucleus*, Studer: CHARPENTIER, *Neue Denkschr. Allg. Schweiz. Gesell.*, i, no. 2, p. 25.
- 1840, } *Cyclas cornea*, Linn.: GRAY, in Turton's *Manual*, new  
Apr. } ed., p. 280, pl. i, f. 2.
- Post }  
Sept. } *Cyclas cornea*, Pfeiffer: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 93, pl. xxxix, f. 19.
1841. *Cyclas plumbeus*, auct.?: VILLA, *Dispos. Syst. Conch.*, p. 44.
1843. *Cyclas flavescens*: MACGILLIVRAY, *Hist. Moll. Aberdeen*, pp. 208 & 246.
1844. *Cyclas scaldiana*, Nob.: NORMAND, *Notice nouv. Cyclades*, p. 5, f. 1, 2.
1845. *Cyclas cornea*, Pfeiffer: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 117, pl. xxiv, f. 4; xxxvii, f. 3 & 4.
1845. *Cyclas citrina*: BROWN, *o. c.*, p. 131, pl. xxiv, f. 15.
1846. *Pisidium cornea*, Lamk.: VERANY, *Cat. Anim. Invert. Genoa, Descriz. Genova*, ii, p. 93. (In reprint, p. 13.)
1849. *Cyclas cornea*, Linnæus: FORBES & HANLEY, *Brit. Moll.*, ii, p. 113, pl. xxxvii, f. 3-6.
1851. *Tellina æquata*, Sheppard [MS.]: GRAY, *List. Brit. Anim. in Brit. Mus.*, vii, p. 19, in synonym.<sup>1</sup>
1852. *Cyclas cornea*, Linn.: LEACH, *Moll. Brit. Synop.*, p. 290.
1853. *Sphærium corneum*: BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. v, p. 345. (*Amén. Malac.*, i, p. 6.)

<sup>1</sup> In 1840 (*Turton's Manual*, p. 280) Gray gave this as "*Cyclas æquata*, Sheppard MSS. *Brit. Mus.*" in the synonymy of *S. rivicola*.



- 1854, } *Sphærium Scaldianum*, Nob.: NORMAND, *Coup d'œil*  
June. } *Cyclades*, p. 1.
- 1854, } *Sphærium Scaldianum*, var. *B. S. citrinum*, Nob.:  
June. } NORMAND, *o. c.*, p. 1.
- 1854, } *Cyclas isocardioides*, Nob. olim in litt.: NORMAND, *o. c.*,  
June. } p. 2, in synonym.
- 1854, } *Sphærium (Sphæriastrum) Scaldianum*: BOURGUIGNAT,  
Dec. } *Rev. & Mag. Zool.*, Sér. II, tom. vi, p. 669.  
(*Amén. Malac.*, i, p. 67.)
- 1854, } *Sphærium (Sphæriastrum) corneum*: BOURGUIGNAT, *l. c.*  
Dec. } (*l. c.*)
- 1856, } *Cyclas cornea*, Linn.: MOQUIN-TANDON, *Hist. Moll.*  
Apr. } *France*, ii, p. 591, pl. liii, f. 17-30.
- 1856, } *Sphærium pisidioides*, n. sp.: GRAY, *Ann. & Mag. Nat.*  
July. } *Hist.*, Ser. II, vol. xviii, p. 25.
1857. *Cyclas cornea*, Linn.: GRAY, in Turton's *Manual*, new  
ed., p. 253, pl. i, f. 2.
1857. *Cyclas pisidioides*, Gray: GRAY, *o. c.*, p. 255.
1862. *Sphærium corneum*, Linné: JEFFREYS, *Brit. Conch.*, i,  
p. 5; v, pl. i, f. 1.
1863. *Cyclas cornea*, Linnæus: REEVE, *L. & F.-W. Moll. Brit.*  
*Is.*, p. 238, figs.
1863. *Cyclas pisidioides*, Gray: REEVE, *o. c.*, p. 239, figs.
1873. *Sphærium (Corncola) cornicum* (Lin.): CLESSIN, in  
Westerlund, *Fauna Moll. Svec.*, pt. ii, p. 505.
1890. *Sphærium (Cyclas) corneum*, Linné: WESTERLUND,  
*Fauna Paläarct. Region*, vii, p. 8.
1890. *Sphærium (Cyclas) scaldianum* Normand: WESTER-  
LUND, *t. c.*, p. 9.
1890. *Sphærium (Cyclas) scaldianum*, var. *pisidioides*, Gray:  
WESTERLUND, *t. c.*, p. 10.

First recorded as British in 1681, by M. Lister (*Hist. Anim. Angl.*, Append., p. 14).

British Distribution in Time: Pliocene, Pleistocene to Recent.

5. †***Sphærium dickinii***, Clessin.

Etyim.:—Named in honour of Herr Dickin.

1877. *Sphærium Dickinii*, n. sp.: CLESSIN, in Martini &  
Chemnitz, *Conch. Cab.*, ed. 2, ix, abth. 3,  
*Cycladeen*, p. 96, pl. xii, f. 18-20.
1877. *Sphærium (Corneola) Dickinii*, Clessin: CLESSIN, *Deutsch.*  
*Excur. Moll. Fauna*, p. 490, f. 317.
1880. *Sphærium corneum*, var. *mænanum*: KOBELT, in Ross-  
mässler, *Icon.*, vii, p. 87, pl. ccviii, f. 2111.
1885. *Sphærium (Corncola) mænanum*, Kobelt: CLESSIN,  
*Deutsch. Excur. Moll. Fauna*, ed. 2, p. 574,  
f. 386.

First recorded as British in 1890, by B. B. Woodward (*Proc. Geol. Assoc.*, xi, p. 378), as a variety of *S. Cornutum*.

British Distribution in Time : Pleistocene.

### 6. *Sphærium lacustre* (Müller).

Etym. :—Low. Lat. *lacustris*, belonging to a lake.

1774. *Tellina lacustris* : MÜLLER, *Verm. Hist.*, ii, p. 204.  
 1791. *Tellina lacustris* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3242.  
 1803. *Cardium lacustre*, Gmel. : MONTAGU, *Test. Brit.*, p. 89.  
 1805. *Cyclas caliculata* : DRAPARNAUD, *Hist. Moll. France*, p. 130, pl. x, f. 14 & 15 [err. pro 13 & 14].  
 1807, } *Cyclas lacustris* : FÉRUSAC, *Essai méthod. Conch.*,  
 early. } p. 128 (in table No. 176).  
 1807, } *Musculium lacustre* : LINK, *Beschreib. Natural.-Samml.*  
 May. } *Univ. Rostock*, Abth. 3, p. 152.  
 1807. *Tellina lacustris*, Linn. Gmel. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 60.  
 1812. *Tellina tuberculata*, mihi : ALTEN, *Syst. Abhandl.*, p. 4, pl. i, f. 1.  
 1813. *Cyclas (Tellina) tenera*, Schrank : GÄRTNER, *Ann. Wetterau. Gesell.*, iii, p. 316. [? Non Schrank.]  
 1817. *Tellina lacustris*, Müll. : DILLWYN, *Cat. Shells*, i, p. 104.  
 1818. *Cyclas (Corneocyclas) lacustris*, Mull. : (FÉRUSAC in litt.) BLAINVILLE, *Dict. Sci. Nat.*, xii, p. 279.  
 1818. *Cyclas tuberculata*, mihi : KLEES, *Dissert. Test. Tubingen*, p. 45.  
 1818, } *Cyclas stagnicola*, Leach : LAMARCK, *Hist. Anim. s. Vert.*,  
 July. } v, p. 559 (as synonym. for *C. caliculata*, Drap.).  
 1821. *Cyclas caliculata*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 122, pl. v, f. 17 & 18.  
 1823. *Tellina stagnicola* (Leach MS.) : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 150.  
 1823. *Tellina lacustris* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 408.  
 1827. *Cyclas lacustris*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xvii, f. 13.  
 1831. *Cyclas caliculata* : TURTON, *Manual*, p. 14, f. 3.  
 1831. *Cyclas lacustris* : TURTON, *o. c.*, p. 14, f. 4.  
 1831. *Cyclas stagnicola*, Leach : TURTON, *o. c.*, p. 14, in Text.  
 1839. *Cyclas Ddingoli*, N. : BIVONA, *Giorn. Sci. Lett. Palermo*, lxiv (altered in MS. to lxvi), p. 221.  
 1840, } *Cyclas lacustris*, Mont. : GRAY, in *Turton's Manual*,  
 Apr. } new ed., p. 281, pl. i, f. 3.  
 Post }  
 Sept. } *Cyclas caliculata*, Drapernaud : BROWN, *Illust. Conch. Brit.*, ed. 2, p. 91, pl. xxxix, f. 21.  
 1840. }

1814. *Cyclas Ryckholtii*, Nob.: NORMAND, *Notice nouv. Cyclades*, p. 7, f. 5 & 6.
1845. *Cyclas Creplini*, Dkr.: DUNKER, *Zeitschr. f. Malak.*, 1845, p. 20.
1845. *Cyclas calyculata*, Drapernaud: BROWN, *Illust. L. & F.-W. Couch. Brit.*, p. 118, pl. xxiv, f. 6.
- 1849, { *Cyclas Terveriana*, Dup.: DUPUY, *Cat. extramar. Galliæ*  
Feb. { *Test.* [p. 4], no. 87; *Hist. Moll. France*,  
p. 674, 1852, pl. xxix, f. 9.
- 1849, { *Cyclas calyculata*, Drapernaud: FORBES & HANLEY,  
Mar. { *Brit. Moll.*, ii, p. 115, pl. xxxvii, f. 7 (as  
*C. lacustris*).
1850. *Cyclas Steinii*, m.: A. SCHMIDT, *Zeitschr. f. Malak.*, 1850, p. 118.
1852. *Cyclas lacustris*, Müll.: LEACH, *Moll. Brit. Synop.*, p. 289.
1852. *Cyclas stagnicola*: LEACH, *o. c.*, p. 291.
1852. *Cyclas alata*: LEACH, *o. c.*, p. 291.
1853. *Sphærium lacustre*: BOURGUIGNAT, *Rev. & Mag. Zool.*, Sér. II, tom. v, p. 345. (*Amén. Malac.*, i, p. 6.)
1853. *Sphærium Ryckholtii*: BOURGUIGNAT, *l. c.* (*l. c.*)
1853. *Sphærium Terverianum*: BOURGUIGNAT, *l. c.* (*l. c.*)
1854. *Sphærium Brochonianum*: BOURGUIGNAT, *Mém. Soc. Sci. Bordeaux*, i, p. 172, pl. iii, f. 1-5.
- 1854, } *Sphærium Jeannotii*, Nob.: NORMAND, *Coup d'œil*  
June. } *Cyclades*, p. 2.
- 1854, } *Sphærium Ryckholtii*, Norm.: NORMAND, *o. c.*, p. 3.  
June. }
- 1854, } *Sphærium Creplini*, Dunker: NORMAND, *o. c.*, p. 3.  
June. }
- 1854, } *Sphærium (Sphæriastrum) Ryckholtii*: BOURGUIGNAT,  
Dec. } *Rev. & Mag. Zool.*, Sér. II, tom. vi, p. 669.  
(*Amén. Malac.*, i, p. 67.)
- 1854, } *Sphærium (Sphæriastrum) Terverianum*: BOURGUIGNAT,  
Dec. } *l. c.* (*l. c.*)
- 1854, } *Sphærium (Sphæriastrum) Brochonianum*: BOURGUIGNAT  
Dec. } *l. c.* (*l. c.*)
- 1854, } *Sphærium (Sphæriastrum) lacustre*: BOURGUIGNAT, *l. c.*  
Dec. } (*l. c.*)
1855. *Cyclas (Securilla) Brochoniana*, Bourg.: DROUËT, *Mém. Soc. R. Liège*, x, p. 164.
1855. *Cyclas (Securilla) Creplini*, Dunk.: DROUËT, *l. c.*
1855. *Cyclas (Securilla) Jeannoti*, Norm.: DROUËT, *l. c.*
1855. *Cyclas (Securilla) lacustris*, Müll.: DROUËT, *l. c.*
1855. *Cyclas (Securilla) Ryckholtii*, Norm.: DROUËT, *l. c.*
1856. *Cyclas lacustris*, Müll.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 539, pl. liii, f. 34-39.
1856. *Cyclas Ryckholtii*, Norm.: MOQUIN-TANDON, *l. c.*, p. 595, pl. liii, f. 40-42.

1857. *Cyclas lacustris*, Mont.: GRAY, in Turton's *Manual*, new ed., p. 257, pl. 1, f. 3.
1862. *Sphærium lacustre*, Müller: JEFFREYS, *Brit. Conch.*, i, p. 10; v, pl. i, f. 4.
1863. *Cyclas lacustris*, Müller: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 241, figs.
1872. *Calyculina calyculatum*, Drap.: CLESSIN, *Malak. Blätt.*, xix, p. 159.
1873. *Calyculina lacustris* (Müll.): CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, pt. ii, p. 517.
1873. *Calyculina ryckholtii*, Normand: CLESSIN, *o. c.*, p. 522.
1877. *Calyculina lacustris*, Müller: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 492, f. 318.
1877. *Calyculina Rykoltii* [sic], Normand: CLESSIN, *o. c.*, p. 496, f. 321.
1877. *Calyculina Creplini*, Dunker: CLESSIN, *o. c.*, p. 498, f. 324.
1890. *Sphærium* (*Calyculina*) *lacustre*, Müll.: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 14.
1890. *Sphærium* (*Calyculina*) *brochoniamum*, Bgt.: WESTERLUND, *t. c.*, p. 15.
1890. *Sphærium* (*Calyculina*) *terverianum*, Dup.: WESTERLUND, *t. c.*, p. 16.
1890. *Sphærium* (*Calyculina*) *creplini*, Dunker: WESTERLUND, *t. c.*, p. 16.
1890. *Sphærium* (*Calyculina*) *ryckholtii*, Normand: WESTERLUND, *t. c.*, p. 17.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 26).

British Distribution in Time: Pleistocene to Recent.

#### 7. *Sphærium pallidum*, Gray.

Etym.:—Lat. *pallidus*, pale.

(Formerly confused with *S. lacustre* (Müller), or *S. ovale* (Férussac).)

1856. *Sphærium pallidum*: GRAY, *Ann. & Mag. Nat. Hist.*, Ser. II, vol. xvii, p. 466, fig.
1857. *Cyclas pallida*: GRAY, in Turton's *Manual*, new ed., p. 254, fig.
1862. *Sphærium ovale*, Férussac: JEFFREYS, *Brit. Conch.*, i, p. 8; v, pl. i, f. 3.
1863. *Cyclas ovalis*, Férussac: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 240, figs.
1890. *Sphærium* (*Cyclas*) *pallidum*, Gray: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 12.

First recorded as British in 1856, by J. E. Gray. (See ref. above.)

British Distribution in Time: Recent

Genus : 2. **PISIDIUM**, C. Pfeiffer.<sup>1</sup>

Etym. :—Lat. *pisum*, a pea.

Type :—*Tellina amnica*, Müller.

(*Tellina*, *Sphærium*, *Cardium*, *Cyclas*, vett. auctt.)

1821. *Pisidium* : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, pp. 17 & 123.
1832. *Pera*, Leach MSS. : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 301, in synonym.
1832. *Euglesa*, Leach MSS. : JENYNS, *t. c.*, p. 302, in synonym.
1840. *Galileja* : O. G. COSTA, *Fauna Sicilia*, Molluschi, p. 1, pl. i, f. 2 a, A, B.
1845. *Pindium* [? err. typ.] : HUMPHREYS, *Contrib. Fauna & Flora Cork, Invertebrata*, p. 7.
- [1846?] } *Piscidium* : BROWN, *Illust. Foss. Conch. Brit.*, p. 209.
1849. } *Pisum*, "Megerle, 1811; not Linn.": GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 184. [Non Megerle.]
1847. *Pisum*, "Megerle, 1811; not Linn.": GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 184. [Non Megerle.]
1852. *Euglesa* : LEACH, *Moll. Brit. Synop.*, p. 291.
1852. *Pera* : LEACH, *o. c.*, p. 291.
1852. *Cordula* : LEACH, *o. c.*, p. 292.
1857. *Musculium*, Link : H. & A. ADAMS, *Genera Moll.*, ii, p. 451. [Non Link. Altered on p. 660, 1858, to "*Pisum*, Mühlfeldt." Non Megerle von Mühlfeldt.]
1871. *Cycladina*, a group of *Pisidium* : CLESSIN, *Malak. Blätt.*, xviii, p. 189. [Non Latreille, 1825; nec Cantraine, 1835.]
1873. *Fluminina*, Sect. 1 of *Pisidium* : CLESSIN, in Westerland, *Fauna Moll. Sveciæ*, pt. ii, p. 529.
1873. *Rivulina*, Sect. 2 of *Pisidium* : CLESSIN, *o. c.*, p. 532. [Non Lea, 1851 (Tiaridæ).]
1873. *Fossarina*, Sect. 3 of *Pisidium* : CLESSIN, *o. c.*, p. 535. [Non Adams & Angas, 1863.]
1903. *Cornocyclas*, Férussac, 1818 (restricted) : DALL, *Proc. Biol. Soc. Washington*, xvi, p. 7. [Non Férussac.]
1903. *Cyclocalyx*, sect. of *Cornocyclas*, Dall : DALL, *l. c.*
1921. *Neopisidium*, } subdivisions of *Pisidium* : ODHNER,  
*Eupisidium*, } *Journ. of Conch.*, xvi, p. 222.

[Much of the synonymy of this puzzling group is and must be "paper" work: the correctness or otherwise of the various determinations of different authors cannot now in most instances be checked.]

<sup>1</sup> For nomenclature, etc., See WOODWARD, *Catalogue of the British species of "Pisidium" . . . in the . . . British Museum*, 1913; also *Proc. Malac. Soc. Lond.*, xiv, 1921, p. 209; and xvi, 1921, p. 14. See also STELFOX, *Journ. of Conch.*, xv, 1918, p. 289.

1. *Pisidium amnicum* (Müller).

Etym. :—Lat. *amnicus*, pertaining to a river.

1774. *Tellina amnica* : MÜLLER, *Verm. Hist.*, ii, p. 205.  
 1791. *Tellina amnica* : GMELIN, in *Linn. Syst. Nat.*, ed. 13,  
 i, pt. 6, p. 3242.  
 1797. *Tellina rivalis* : MATON, *Trans. Linn. Soc.*, iii, p. 44,  
 pl. xiii, f. 37, 38.  
 1801. *Cyclas palustris* : DRAPARNAUD, *Tabl. Moll. France*,  
 p. 106.  
 1803. *Cardium amnicum*, Gmel. : MONTAGU, *Test. Brit.*, p. 86.  
 1805. *Cyclas palustris* : DRAPARNAUD, *Hist. Moll. France*,  
 p. 131, pl. x, f. 17 & 18 (err. pro 15 & 16).  
 1807. *Tellina amnica*, Müll. : MATON & RACKETT, *Trans. Linn.*  
*Soc.*, viii, p. 60.  
 1810. *Tellina amnea* : [Author ?] *Ency. Brit.*, ed. 4, vi, p. 406.  
 1813. *Tellina amnica* : RACKETT, in Pulteney, *Cat. Dorset.*,  
 ed. 2, p. 31, pl. vii, f. 2a.  
 1813? *Cyclas amnica*, Müll. : FLEMING, *Edinb. Ency.*, vii,  
 p. 92.  
 1817. *Tellina amnica*, Müll. : DILLWYN, *Cat. Shells*, i, p. 105.  
 1818. *Cyclas (Corneoicyclas) amnia* [sic] : FÉRUSAC in litt.,  
 BLAINVILLE, *Dict. Sci. Nat.*, xii, p. 280.  
 1818. *Cyclas obliqua* [n. sp.] : LAMARCK, *Hist. Anim. s. Vert.*,  
 v, p. 559.  
 1821. *Pisidium obliquum*, Lam. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 124, pl. v, f. 19, 20.  
 1823. *Tellina amnica* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 408.  
 1826. *Cyclas amnica*, Gmel. : RISSO, *Hist. Nat. Europ. mérid.*,  
 iv, p. 338.  
 1827. *Cyclas obliqua*, Lam. : BROWN, *Illust. Conch. Brit.*, ed. 1,  
 pl. xvii, f. 14.  
 1831. *Cyclas amnica* : TURTON, *Manual*, p. 15, f. 5.  
 1832. *Pisidium amnicum*, Müll. : JENYNS, *Trans. Camb. Phil.*  
*Soc.*, iv, p. 309, pl. xix, f. 2.  
 1832. *Pera fluviatilis*, Leach MSS. : } JENYNS, *t. c.*, p. 310, in  
 1832. *Pera Henslowiana*, Leach MSS. : } synonym.  
 1838. *Pisidium inflatum* : MEGERLE, in PORRO, *Malac. Comasca*,  
 p. 121, pl. ii, f. 13 : cites :—"Syn. *Cyclus*  
*pfeifferi*, Zeigler (sec. Stenz.)."  
 1840. } *Pisidium amnicum*, Müller : GRAY, in Turton's *Manual*,  
 Apr. } new ed., p. 285, pl. i, f. 5.  
 Post }  
 Sept. } *Pisidium obliquum*, Lamarck : BROWN, *Illust. Conch.*  
 1840 } *Brit.*, ed. 2, p. 94, pl. xxxix, f. 22.  
 1845. *Pisidium obliquum*, Pfeiffer : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 118, pl. xxiv, f. 7, xxvii,  
 f. 1 & 2.  
 1847. *Pisum amnicum* : GRAY, *Proc. Zool. Soc.*, xv, p. 184.  
 1849. } *Piscidium amnicum* : BROWN, *Illust. Foss. Conch.*,  
 [1846?]} p. 210, pl. lxxxvi, f. 10.



- 1849, } *Pisidium annicum*, Jenyns: GASSIES, *Tabl. Moll.*  
Mar. } *Agenais*, p. 208.
- 1849, } *Pisidium annicum*, Müller: FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, ii, p. 133, pl. xxxvii, f. 8 & 9.
1852. *Pera henslowiana*: LEACH, *Moll. Brit. Synop.*, p. 291.
1852. *Pera amnica*: }  
1852. *Pera fluviatilis*: } LEACH, *o. c.*, p. 292.
1852. *Cordula amnica*: LEACH, *o. c.*, p. 293.
1854. *Pisum annicum*, Müll.: DESHAYES, *Cat. Conch. Brit.*  
*Mus.*, ii, p. 274.
1855. *Pisidium intermedium*, nob.: GASSIES, *Actes Soc. Linn.*  
*Bordeaux*, xx, p. 338, pl. i, f. 4. (Cf. GASSIES,  
*Journ. de Conchyl.*, v, 1856, p. 143.)
1856. *Pisidium annicum*, Müll.: MOQUIN-TANDON, *Hist. Moll.*  
*France*, ii, p. 583, pl. lii, f. 11-15.
1857. *Pisidium annicum*, Müller: GRAY, in Turton's *Manual*,  
new ed., p. 268, pl. i, f. 5.
1858. *Musculium annicum*, Müll.: H. & A. ADAMS, *Genera*  
*Moll.*, ii, p. 451. (*Pisum annicum*, id., *t. c.*,  
p. 660.)
1862. *Pisidium annicum*, Draparnaud: JEFFREYS, *Brit.*  
*Conch.*, i, p. 20; v, pl. i, f. 5.
1863. *Pisidium annicum*, Müller: REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 228, figs.
1873. *Pisidium (Fluminina) annicum* (Müller): CLESSIN, in  
Westerlund, *Fauna Moll. Sveciæ*, pt. ii,  
p. 529.
1879. *Pisidium alienum*, n. sp.: CLESSIN, in Martini & Chem-  
nitz, *Conch.-Cab.*, ed. 2, ix, abth. 3, Cycladeen,  
p. 269, pl. xli, f. 3-5.
1880. *Pisidium annicum*, var. *nova* [n. v.]: PAULUCCI, *Bull.*  
*Soc. Malac. Ital.*, vi, p. 176.
1887. *Pisidium elongatum* (olim *annicum*, var. *elongata*, Baud.):  
SERVAIN, *Bull. Soc. Malac. France*, iv, p. 252.
1888. *Pisidium danubiale* (Bourg. in coll.): SERVAIN, *t. c.*, v,  
p. 313.
1893. *Pisidium depressum* } n. spp.: LOCARD, *Coq. Eauz*  
1893. *Pisidium transversum* } *douces France*, p. 140.
1902. *Pisidium baicalense*, n. sp.: DYBOWSKI, *Nachtbl. Deutsch.*  
*Malak. Gesell.*, xxxiv, p. 93; Rossmässler,  
*Icon.*, N.F. x, f. 1814.
1903. *Cornecocylas (Pisidium) amnica*, Müll.: DALL, *Proc.*  
*Biol. Soc. Washington*, xvi, p. 7.
1909. *Pisidium subtilestriatum*, n. sp. [= var. *nova*, Paul.]:  
LINDHOLM, in Korotneff, *Wissensch. Ergebn.*  
*Zool. Exped. Baikal.-See*, iv, p. 84, pl. ii.

First recorded as British in 1797, by W. G. Maton, as  
*Tellina rivalis*. (See ref. above.)

British Distribution in Time: Pliocene to Recent.

2. †*Pisidium astartoides*, Sandberger.

Etym. :—Astarte, a genus of Mollusca + εἶδος, resembling.

1840. *Cyclas (Pisidium) amnica*, var. ? : LYELL, *Lond. & Edinb. Phil. Mag.*, Ser. III, xvi, pp. 363 & 364, figs.; id., *Antiq. Man.*, 1863, p. 217, figs. p. 218.
1851. *Pisidium amnicum*, var. *sulcatum* : S. V. WOOD, *Crag Moll. (Pal. Soc. Monog.)*, ii, p. 110.
1864. *Pisidium antiquum*, n. sp. : MARTENS, *Zeitschr. Deutsch. Geol. Gesell.*, xvi, p. 349. [Non Braun, 1851.]
1880. *Pisidium astartoides* : SANDBERGER, *Palaeontographica*, xxvii (N.F. vii), p. 96, pl. xii, f. 1–1e.

First recorded as British in 1840, by Sir C. Lyell, as *Cyclas (Pisidium) amnica*, var. ? (See ref. above.)  
British Distribution in Time : Pliocene to Pleistocene.

3. *Pisidium cinereum*, Alder.

Etym. :—Lat. *cinereus*, ash-coloured.

(Generally known previously as *P. fontinale* or *P. casertanum*.)

1791. *Cardium casertanum* : POLI, *Test. utr. Siciliae*, i, ord. II., p. 65, pl. xvi, f. 1. [Not a binomial work.]
- ?1821. *Pisidium fontinale*, Drap. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 125, pl. v, f. 15 & 16. [? Non Drap.]
- ?1826. *Cyclas vitrea* (N) : RISSO, *Hist. Nat. Europe mérid.*, iv, p. 338.  
[Bourguignat gives this as *P. casertanum*, var. *pulchella*.]
- ?1830. *Cyclas prisca*, m. : EICHWALD, *Naturh. Skizze von Lithauen*, p. 207.
- ?1831. *Cyclas pusilla*, Turton [pars] : TURTON, *Manual*, p. 16.
- ?1836. *Pisidium australe*, n. sp. : PHILIPPI, *Enum. Moll. Siciliae*, i, p. 39, pl. xiv, f. 11.
1838. *Pisidium cinereum* : ALDER, *Trans. Nat. Hist. Soc. Northumbld.*, ii, p. 341.
1840. *Galileja tenebrosa*, n. gen., n. sp. : COSTA, *Faun. Sicil.*, i, Moll., p. 1, pl. i, f. 2 a, A, B.
- 1840, } *Pisidium cinereum*, Alder : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 286, pl. xii, f. 152.
- Post }  
Sept. } *Pisidium fontinale*, Pfeiffer : BROWN, *Illust. Conch.*  
1840. } *Brit.*, ed. 2, p. 94, pl. xxxix, f. 23.
- Post }  
Sept. } *Pisidium cinereum*, Alder : BROWN, *o. c.*, p. 95, pl. xxxix,  
1840. } f. 28.
1843. *Cyclas cinerea*, Alder : HANLEY, *Cat. Rec. Bivalve Shells*, p. 91.

1843. *Pisidium roseum*, m. : SCHOLTZ, *Schlesien's Moll.*, p. 140;  
*P. fontinale*, b. *roseum*, id., o. c., Suppt.  
 (1853), p. 16.
1844. *Cyclas lenticularis*, nob. : NORMAND, *Notice Cyclades  
 Valenciennes*, p. 8, pl., f. 7 & 8.
1845. *Pisidium fontinale*, Pfeiffer : BROWN, *Illust. L. & F.-W.  
 Conch. Brit.*, p. 119, pl. xxiv, f. 8.
1845. *Pisidium cinereum*, Alder : BROWN, o. c., p. 121, pl. xxiv,  
 f. 13.
1846. *Pisidium vitreum*, Pfeiffer : VERANY, in *Descrizione di  
 Genova*, i, pt. 2, p. 93.
- 1849, { *Pisidium caliculatum* : DUPUY, *Cat. extram. Gallia Test.*  
 Feb. { [p. 4], no. 229; *Hist. Moll. France*, 1852,  
 p. 684, pl. xxx, f. 4.
- 1849, { *Pisidium iratianum* : DUPUY, l. c., no. 234. (A syn. for  
 Feb. { *P. cinereum*, id., *Hist. Moll. France*, 1852,  
 p. 683).
- 1849, { *Pisidium thermale* : DUPUY, l. c., no. 238; *Hist. Moll.*  
 Feb. { *France*, 1852, p. 682, pl. xxx, f. 6.
- ?1849, { *Pisidium limosum*, nob. [pars] : GASSIES, *Tabl. Moll.*  
 Mar. { *Agenais*, p. 206, pl. ii, f. 10.
- 1849, { *Pisidium amnicum*, Jenyns : var. *B. nitida* ? spec. nov. ;  
 Mar. { GASSIES, o. c., p. 208 [= *intermedium*, Gassies,  
 v. *infra*.]
- 1849, { *Pisidium cinereum*, Alder : FORBES & HANLEY, *Brit.*  
 Apr. { *Moll.*, ii, p. 125, pl. xxxvi, f. 2.
1852. *Pisidium lenticulare*, Norm. : DUPUY, *Hist. Moll. France*,  
 p. 680, pl. xxx, f. 2.
1852. *Pisidium pulchellum* : DUPUY, o. c., p. 638, pl. xxx, f. 5.  
 [Non Jenyns.]
1852. *Pisidium priscum*, m. : EICHWALD, *Lethæa Rossica*, iii,  
 p. 87, pl. v, f. 8 a-c.
1854. *Pisidium grateclupianum*, nob. : NORMAND, *Coup d'œil  
 Cyclades Nord*, p. 4.
1854. *Pisum casertanum*, Poli : DESHAYES, *Cat. Conch. Brit.*  
*Mus.*, ii, p. 275.
1854. *Pisum vitreum*, Risso [pars] : DESHAYES, t. c., p.  
 275.
1854. *Pisum australe*, Phil. : DESHAYES, t. c., p. 276.
1854. *Pisum lenticulare*, Norm. : DESHAYES, t. c., p. 280.
1855. *Pisidium intermedium*, nob. : GASSIES, *Actes Soc. Linn.  
 Bordeaux*, xx, p. 338, pl. i, f. 4. [Olim  
*Pisidium amnicum*, Jenyns, var. *B. nitida*  
 Gassies, q. v. *supra*.]
1855. *Pisidium pallidum*, nob. : GASSIES, t. c., p. 343, pl. i, f. 10.
1856. *Pisidium amnicum*, vars.  $\epsilon$  *nitidum*,  $\zeta$  *intermedium*,  $\eta$   
*grateclupianum* [sic] : MOQUIN-TANDON, *Hist.*  
*Moll. France*, ii, p. 583.
1856. *Pisidium casertanum*, Poli : MOQUIN-TANDON, t. c., p. 584.

1857. *Pisidium annicum*, var. *grateloupianum*, Norm. : BAUDON, *Mém. Soc. Acad. Oise*, iii, pp. 349 & 355, pl. iv, f. E.
1857. } *Pisidium cinereum*, Alder : GRAY, in Turton's *Manual*,  
Sept. } new ed., p. 268, pl. xii, f. 152.
1858. *Musculium australe*, Phil. : H. & A. ADAMS, *Genera Moll.*, ii, p. 451.
1858. *Musculium casertanum*, Poli : H. & A. ADAMS, *t. c.*, p. 451.
1858. *Musculium lenticulare*, Normand : H. & A. ADAMS, *t. c.*, p. 451.
1858. *Pisum lenticulare*, Normand : H. & A. ADAMS, *t. c.*, p. 660.
1858. *Musculium roseum*, Scholtz : H. & A. ADAMS, *t. c.*, p. 452.
1858. *Pisum roseum*, Scholtz : H. & A. ADAMS, *t. c.*, p. 660.
1858. *Musculium tenebrosa* [sic], DaCosta : H. & A. ADAMS, *t. c.*, ii, p. 452.
1858. *Pisum tenebrosa* [sic], DaCosta : H. & A. ADAMS, *t. c.*, p. 660.
1858. *Musculium vitreum*, Risso : H. & A. ADAMS, *t. c.*, p. 452.
1858. *Pisum vitreum*, Risso : H. & A. ADAMS, *t. c.*, p. 660.
1859. *Pisidium casertanum*, var. *B. limosum* [sic] : GASSIES, *Actes Soc. Linn. Bordeaux*, xxii, p. 301.
1859. *Pisidium henslowianum*, var. *cinerea* : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 37.
1859. *Pisidium pusillum*, var. *casertana* : JEFFREYS, *l. c.*
1862. *Pisidium fontinale*, Draparnaud : JEFFREYS, *Brit. Conch.*, i, p. 20; v, pl. i, f. 6.
1862. *Pisidium fontinale*, var. 3 *pallida* : JEFFREYS, *t. c.*, p. 21.
1862. *Pisidium fontinale*, var. 4 *cinerea* : JEFFREYS, *t. c.*, p. 21.
1862. *Pisidium cuneatum* : BIELZ, *Verhandl. Sicbenb. Ver. Naturw.*, xiii, p. 220.
1863. *Pisidium Casertanum*, Poli : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 232, figs.
1873. *Pisidium ibericum*, n. sp. : CLESSIN, *Malakozool. Blätt.*, xx, p. 29, pl. i, f. 4.
1873. *Pisidium* (*Fossarina*) *pallidum*, Jeffr. : CLESSIN, in Westerlund, *Fauna Moll., Sveciæ*, pt. ii, p. 539.
1873. *Pisidium* (*Fossarina*) *fossarinum*, Cless. : CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, pt. ii, p. 544.
1874. *Pisidium obliquatum*, n. sp. : CLESSIN, in Fedchenko, *Izvyest. imp. Obshchest. Lyubīt, Estestvoz. Antrop. i Etnogr. Moskva*, xi, vuip. 1, p. 36, pl. iii, f. 31.
1874. *Pisidium acuminatum*, n. sp. : CLESSIN, *t. c.*, p. 37, pl. iii, f. 32.
1874. *Pisidium pulchellum*, Jenyns : CLESSIN, in Martini & Chemnitz, *Conch.-Cab.*, ed. 2, ix, abth. 3, Cycladeen, p. 23, pl. ii, f. 13-15. [*Non Jenyns.*]

1874. *Pisidium rivulare*, Clessin : CLESSIN, *t. c.*, p. 30, pl. iii, f. 7-11.
- ?1874. *Pisidium hispanicum*, Clessin : CLESSIN, *t. c.*, p. 37, pl. iv, f. 4-6.
- ?1874. *Pisidium moreanum*, Clessin : CLESSIN, *t. c.*, p. 38, pl. iv, f. 7-9.
- ?1874. *Pisidium heldreichii*, Clessin : CLESSIN, *t. c.*, p. 38, pl. iv, f. 10-12.
1874. *Pisidium italicum*, Clessin : CLESSIN, *t. c.*, p. 40, pl. iv, f. 16-18.
1876. *Pisidium sordellianum* [n. sp.] : PINI, *Bull. Soc. Malac. Ital.*, ii, p. 185.
1876. *Pisidium nordenskiöldi*, nov. sp. : CLESSIN, in Westerlund, *Nachrbl. Deutsch. Malak. Gesell.*, viii, p. 103; id., *K. Svensk. Vet.-Akad. Handl.*, Ser. II, vol. xiv, no. 12, p. 68 [pl. f. 20].
1876. *Pisidium sibiricum*, nov. sp. : CLESSIN, in Westerlund, *Nachrbl. Deutsch. Malak. Gesell.*, viii, p. 103; id., *K. Svensk. Vet.-Akad. Handl.*, Ser. II, vol. xiv, no. 12, p. 69 [pl. f. 21].
1876. *Pisidium boreale*, nov. sp. : CLESSIN, in Westerlund, *Nachrbl. Deutsch. Malak. Gesell.*, viii, p. 103; id., *K. Svensk. Vet.-Akad. Handl.*, Ser. II, vol. xiv, no. 12, p. 70 [pl. f. 23].
1877. *Pisidium herminii*, Welwitsch : CLESSIN, in Martini & Chemnitz, *Conch.-Cab.*, ed. 2, ix, abth. 3, Cycladeen, p. 61, pl. vii, f. 12-14.
1877. *Pisidium ovatum*, n. sp. : CLESSIN, *o. c.*, p. 72, pl. viii, f. 22-24.
1880. *Pisidium targionianus* [sic] : PAULUCCI, *Bull. Soc. Malac. Ital.*, vi, p. 176.
1888. *Pisidium lindstroemi*, n. sp. : CLESSIN, *Öfvers. K. Vet.-Akad. Handl. Stockholm*, 1888, p. 340, figs.
- ?1893. *Pisidium arcticum*, n. sp. : WESTERLUND, *Nachrbl. Deutsch. Malak. Gesell.*, 1893, p. 132. [Non Westerlund, 1883.]
- ?1893. *Pisidium nucleatum*, n. sp. : BENOÎT, in Locard, *Coq. Eaux douces France*, p. 142. (Also *Ann. Soc. Agric. Lyon*, Sér. VII, tom. i, 1894, p. 142.)
1896. *Pisidium impar*, m. : WESTERLUND, *Ann. Mus. Zool. Acad. Imp. Sci. St. Petersburg.*, 1896, p. 198.
1899. *Pisidium xantholenum*, Castro in coll. : LOCARD, *Arch. Mus. Hist. Nat. Lyon*, vii, no. 1, p. 209.
1902. *Pisidium maculatum*, n. sp. }  
 1902. *Pisidium trigonoides*, n. sp. } DYBOWSKI, *Nachrbl. Deutsch. Malak. Gesell.*, xxxiv, pp. 94 & 95; ROSSMÄSSLER, *Icon.*, N.F. x, f. 1807 & 1809.

1909. *Pisidium dubium*, n. sp. : LINDHOLM, in Korotneff, *Wissensch. Ergebn. Zool. Exped. Baikal.-See*, iv, p. 85, pl. ii, f. 45, 46.

First recorded as British in 1838, by J. Alder. (See ref. above.)

British Distribution in Time : Pliocene to Recent.

#### 4. *Pisidium nitidum*, Jenyns.

Etym. :—Lat. *nitidus*, shining.

1832. *Pisidium nitidum*, Nobis : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 304, pl. xx, f. 7 & 8.
1840. } *Pisidium nitidum*, Jenyns : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 283, pl. xii, f. 150.
- ?Post } *Pisidium nitidum*, Jenyns : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 95, pl. xxxix, f. 26.
1840. }  
1843. *Cyclas nitida*, Jenyns : HANLEY, *Cat. Rec. Bivalve Shells*, p. 90.
- ?1845. *Pisidium nitidum*, Jenyns : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 121, pl. xxiv, f. 11.
1849. *Pisidium nitidum*, Jenyns : FORBES & HANLEY, *Brit. Moll.*, ii, p. 126, pl. xxxvii, f. 14.
1854. *Pisidium incertum*, Nob. : NORMAND, *Coup d'œil Cyclades Nord*, p. 6. [Quotes Jenyns sp. & fig. as synonym.]
1854. *Pisum nitidum*, Jenyns : DESHAYES, *Cat. Conch. Brit. Mus.*, ii, p. 277.
1856. *Pisidium nitidum*, Jen. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 586, pl. lii, f. 33-37.
1857. *Pisidium nitidum*, Jenyns : GRAY, in Turton's *Manual*, new ed., p. 265, pl. xii, f. 150.
1858. *Musculium nitidum*, Jenyns : H. & A. ADAMS, *Genera Moll.*, ii, p. 451.
1859. *Pisidium pusillum*, var. *obtusalis* : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 37.
1862. *Pisidium pusillum*, var. *obtusalis* : JEFFREYS, *Brit. Conch.*, i, p. 24.
1863. *Pisidium nitidum*, Jenyns : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 231, figs.
1871. *Pisidium (Cycladina) nitidum* : CLESSIN, *Malak. Blätt.*, xviii, p. 189.
- ?1873. *Pisidium pileus*, n. sp. : CLESSIN, *Correspond.-Blätt. zool.-min. Ver. Regensburg*, xxvii, p. 150.
- ?1873. *Pisidium fossarinum*,  $\beta$  *acuminatum*, Clessin : CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, p. 545.
1873. *Pisidium (Fossarina) nitidum*, Jenyns : CLESSIN, in Westerlund, *o. c.*, pt. ii, p. 551.



1874. *Pisidium demissum*, n. sp. : CLESSIN, *Correspond.-Blätt. zool.-min. Ver. Regensburg*, xxviii, p. 182. [Teste Odhner.]
1874. *Pisidium sphaeriforme*, n. sp. : CLESSIN, in Fedchenko, *Izvest. imp. Obshchest. Lyubit. Estestvoz. Antrop. i Etnogr. Moskva*, xi, vuip. 1, p. 38, pl. iii, f. 33.
1909. *Pisidium granum*, n. sp. : LINDHOLM, in Korotneff, *Wissensch. Ergebn. Zool. Exped. Baikal-See*, iv, p. 87.

First recorded as British in 1832, by L. Jenyns. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

### 5. *Pisidium personatum*, Malm.

Etym. :—Lat. *personatus*, masked.

1831. *Cyclas gibba* (Leach MS.) : ALDER, *Trans. Nat. Hist. Soc. Northumberland.*, i, p. 70. [Specimens from Alder under this name in the Jenyns Collection belong (*Fide* C. Oldham, Stelfox in litt.) to this species. Their identity, however, has not been fully established, and since Leach's species was a mixed one the name cannot be adopted. Alder himself altered it to :—]
1838. *Pisidium pusillum*, Jen. : ALDER, *o. c.*, ii, p. 341.
- 1849, Mar. *Pisidium limosum* (Nob.) [pars] : GASSIES, *Tabl. Moll. Agenais*, p. 206, pl. ii, f. 10. [Teste Stelfox, from specimens in the Gassies' Collection (*Proc. Malac. Soc.*, xv, 1922, p. 55). There is no proof, however, that these specimens are identical with those originally described. Dupuy's *P. gassiesianum* (*Cat. Extranar. Galliae Test.*, Feb. 1849 [p. 4], no. 232; *Hist. Moll. France*, 1852, p. 685, pl. xxx, f. 7), said by its author to be synonymous with Gassies' *P. limosum*, does not resemble the present species so much as it does *P. milium*, Held, with which it is still placed.]
1855. *Pisidium personatum*, n. sp. : MALM, *Götheborgs K. Vet. & Vitt. Samhäll. Handl.*, iii, p. 107, figs.
- ?1856. *Pisidium nitidum*, var. *splendens* (Baudon MS.) : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 586. (Baudon, *Mém. Soc. Acad. Oise*, iii, 1857, pp. 335, 337, pl. i, f. B, B.)
1873. *Pisidium* (*Fossarina*) *obtusale*  $\gamma$  *personatum*, Malm : CLESSIN, in Westerlund, *Fauna Moll. Svccia*, pt. ii. p. 548.

1874. *Pisidium (Fossarina) fossarium*, var. *curtum*: CLESSIN, in Martini & Chemnitz, *Conch. Cub.*, ed. 2, ix, abth. 3, Cycladeen, p. 34.
1877. *Pisidium submersum*, n. sp.: CLESSIN, *Malak. Blätt.*, xxiv, p. 179, pl. iii, f. 6. [*Teste* Odhner.]
1880. *Pisidium tritonis*, Clessin: CLESSIN, in Studer, *Zool. Anz.*, iii, p. 207. [*Nom. nud.*]
1880. *Pisidium imbutum*, Clessin: CLESSIN, *l. c.* [*Nom. nud.*]
1890. *Pisidium (Fossarina) fontinale*, var. *curtum*, Cless.: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 26.
1890. *Pisidium (Fossarina) obtusale*, var. *personatum*, Malm: WESTERLUND, *t. c.*, p. 35.
1890. *Pisidium tritonis*, Clessin: CLESSIN, *Moll. Fauna Oesterr.-Ungar.*, p. 783, f. 517. [*Teste* Odhner.]
1890. *Pisidium imbutum*, Clessin: CLESSIN, *o. c.*, p. 784, f. 518. [*Teste* Odhner.]
1890. *Pisidium Moussonianum*, m.: CLESSIN, *o. c.*, p. 787, f. 522. [*Teste* Odhner, who further records seeing specimens under the manuscript name of *locarnense*.]
1890. *Pisidium luganense*: CLESSIN, *o. c.*, p. 789, f. 523. [*Teste* Odhner.]
1899. *Pisidium clessini*, n. sp. [pars]: SURBECK, *Rev. Suisse Zool.*, vi, p. 482, pl. xii, f. 6-15.

First recorded as British in 1908, by B. B. Woodward (*Proc. Malac. Soc. Lond.*, viii, p. 124).

British Distribution in Time: Pleistocene to Recent.

## 6. *Pisidium pusillulum*, B. B. Woodward.

Etym. :—Lat. *pusillulus*, very small.

- ?1791. *Tellina pusilla*: GMELIN, in Linné, *Syst. Nat.*, ed. 13, i, p. 3231, no. 16.
1819. *Tellina pusilla* [pars]: TURTON, *Conch. Dict.*, p. 167.
1822. *Cyclas pusilla* [pars]: TURTON, *o. c.*, p. 251, pl. xi, f. 16 & 17.
1822. *Cyclas fontinalis*, Lam.: NILSSON, *Hist. Moll. Sveciæ*, p. 101. [*Fide* Malm, *Götheborgs K. Vet. & Vitt. Samhäll. Handl.*, iii, 1855, p. 104.]
1831. *Cyclas pusilla*, Turton: TURTON, *Manual*, p. 16, f. 7.
1832. *Pisidium pussillum*, Gmel.: JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 302, pl. xx, f. 4-6.
1832. *Euglesa Henslowiana*, Leach MSS.: JENYNS, *t. c.*, p. 302, in synonym.
1840. } *Pisidium pusillum*, Turton: GRAY, in Turton's *Manual*,  
Apr. J new ed., p. 283, pl. i, f. 7.

- ?Post } *Pisidium pusillum*, Jenyns : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 95, pl. xxxix, f. 27.  
 1840. }
- ?1845. *Pisidium pusillum*, Jenyns : BROWN, *Illust. L. & F.-W.*  
*Conch. Brit.*, p. 121, pl. xxiv, f. 12.
- ?1849 } *Piscidium pusillum* : BROWN, *Illust. Foss. Conch.*, p. 210,  
 [1846?]} pl. lxxxvi, f. 11.
- ?1849. *Pisidium pusillum*, Turton : FORBES & HANLEY, *Brit.*  
*Moll.*, ii, p. 123, pl. xxxvii, f. 14.
- ?1852. *Euglesa henslowiana* : LEACH, *Moll. Brit. Synop.*, p. 291.
1854. *Pisum pusillum*, Gmel. : DESHAYES, *Cat. Conch. Brit.*  
*Mus.*, ii, p. 277.
1856. *Pisidium cazertanum*, var.  $\gamma$  *thermale* : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 584.
1856. *Pisidium pusillum*, Gmel. : MOQUIN-TANDON, *t. c.*, p. 587,  
 pl. lii, f. 38-42.
1857. *Pisidium pusillum* : GRAY, in Turton's *Manual*, new ed.,  
 p. 266, pl. i, f. 7.
1858. *Musculium pusillum*, Gmel. : H. & A. ADAMS, *Genera*  
*Moll.*, ii, p. 452.
1862. *Pisidium pusillum*, Gmelin : JEFFREYS, *Brit. Conch.*, i,  
 p. 23; v, pl. i, f. 7.
1863. *Pisidium pusillum*, Gmelin : REEVE, *L. & F.-W. Moll.*  
*Brit. Is.*, p. 230, figs.
1871. *Pisidium milium*, var. *normandianum*, Dupuy : CLESSIN,  
*Malakozool. Blätt.*, xviii, p. 194. [*Fide*  
*specimens from Clessin in Lindholm Coll.*]
1871. *Pisidium (Cycladina) pusillum* : CLESSIN, *Malak. Blätt.*,  
 xviii, p. 189.
1873. *Pisidium (Fossarina) pusillum*, Gmel. : CLESSIN, in Wester-  
 lund, *Fauna Moll. Seccia*, pt. ii, p. 549.
1874. *Pisidium foreli*, n. : CLESSIN, *Correspond.-Blätt. zool.*  
*min. Ver. Regensburg*, xxviii, p. 181. [*Teste*  
*Odhner.*]
1899. *Pisidium clessini*, n. sp. [pars] : SURBECK, *Rev. Suisse*  
*Zool.*, vi, p. 482, pl. xii, f. 6-15.
1903. *Corneocyclus (s.s.) pusilla*, Gmel. : DALL, *Proc. Biol. Soc.*  
*Washington*, xvi, p. 7.
1921. *Pisidium pusillulum*, nom. nov. : B. B. WOODWARD,  
*Proc. Malac. Soc. Lond.*, xiv, p. 219.

First recorded as British in 1832, by L. Jenyns, as *P.*  
*pusillum*, Gmel. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

## 7. *Pisidium milium*, Held.

Etym. :—Lat. *milium*, millet.

1832. *Pisidium pulchellum*, var.  $\delta$  : JENYNS, *Trans. Camb. Phil.*  
*Soc.*, iv, p. 306, pl. xxi, f. 4 & 5.

1836. *Pisidium milium*: HELD, *Isis*, 1836, col. 281. [*Fide* Clessin, *Malak. Blätt.*, xviii, 1871, 190; xix, pl. i, f. 1.]
- 1849, } *Pisidium gassiesianum*: DUPUY, *Cat. extram. Gallix*  
Feb. } *Test.* [Feb., 1849] [p. 4], no. 232; GASSIES, *Tabl. Moll. Agenais* [Mar., 1849], p. 207, pl. ii, f. 11; DUPUY, *Hist. Nat. Moll. France*, 1852, p. 685, pl. xxx; f. 7. [According to Stelfox *Gassiesianum*, Dupuy = *limosum*, Gassies = *personatum*, Malm; but this is dubious.]
- 1849, } *Pisidium normandianum*: DUPUY, *Cat. extram. Gallix*  
Feb. } *Test.* [p. 4], no. 235; id., *Hist. Nat. Moll. France*, 1852, p. 686, pl. xxxi, f. 1.
- 1849, } *Cyclas pulchellum*, Jenyns, var.  $\delta$ : FORBES & HANLEY,  
Apr. } *Brit. Moll.*, ii, p. 129, pl. xxxvii, f. 13.
1854. *Pisidium tetragonum*, Nob.: NORMAND, *Coup d'œil Cyclades Nord*, p. 5.
1855. *Pisidium baudonianum*, P. de Cess.: CESSAC, *Bull. Soc. Sci. Nat. La Creuse*, ii, p. 74.
1855. *Pisidium arcaforme*, n. sp.: MALM, *Götheborgs K. Vet. & Vitt. Samhäll. Handl.*, N.F. iii, p. 101, figs.
1856. *Pisidium casertanum*,  $\epsilon$  *normandianum* &  $\eta$  *gassiesianum*: MOQUIN-TANDON, *Hist. Moll. France*, ii, pp. 584 & 585.
1856. *Pisidium pusillum*,  $\delta$  *alligatum*, Baudon MS.: BAUDON, in Moquin-Tandon, *Hist. Moll. France*, ii, p. 587.
1856. *Pisidium pusillum*,  $\epsilon$  *quadrilaterum*, Baudon MS.: BAUDON, in Moquin-Tandon, *l. c.*; BAUDON, *Mém. Soc. Acad. Oise*, iii, 1857, p. 333, pl. i, f. D.
1857. *Pisidium gassiesianum*, var. C. *alligata*, nob.: BAUDON, *l. c.*, pp. 338 & 341, pl. ii, f. A.
1859. *Pisidium roseum*, Scholtz: JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 38, pl. ii, f. 3 a-c. [*Non* Schultz.]
1862. *Pisidium roseum*, Scholtz: JEFFREYS, *Brit. Conch.*, i, p. 26; v, pl. i, f. 9. [*Non* Schultz.]
1873. *Pisidium* (*Fossarina*) *milium*, Held: CLESSIN, in Westerlund; *Fauna Moll. Svecia*, pt. ii, p. 542.
1890. *Pisidium* (*Fossarina*) *casertanum*, var. *gassiesianum*: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 28.

First recorded as British in 1832, by L. Jenyns, as *P. pulchellum*, var.  $\delta$ . (See ref. above.)

British Distribution in Time: Cromerian to Recent.

8. *Pisidium pulchellum*, Jenyns.

Etym. :—Lat. *pulchellus*, small and beautiful.

1832. *Pisidium pulchellum*, Nobis : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 306, pl. xxi, f. 1.
1840. *Pisidium pulchellum*, Jenyns : GRAY, in *Turton's Manual*, new ed., p. 284, pl. xii, f. 151.
1843. *Cyclas pulchella*, Jenyns : HANLEY, *Cat. Rec. Bivalve Shells*, p. 91.
1849. *Pisidium pulchellum*, Jenyns : FORBES & HANLEY, *Brit. Moll.*, ii, p. 128.
1852. *Pera pulchella* : LEACH, *Moll. Brit. Synop.*, p. 292.
1854. *Pisum pulchellum*, Jenyns : DESHAYES, *Cat. Conch. Brit. Mus.*, ii, p. 278.
1857. *Pisidium pulchellum*, Jenyns : GRAY, in *Turton's Manual*, new ed., p. 266, pl. xii, f. 151.
1859. *Pisidium henslowianum* (including *pulchellum*) : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 37.
1862. *Pisidium fontinale*, var. 2 *pulchella* : JEFFREYS, *Brit. Conch.*, i, p. 21.
1863. *Pisidium pulchellum*, Jenyns : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 233, figs.
1873. *Pisidium* (*Fossarina*) *pulchellum*, Jen. : CLESSIN, in *Westerlund, Fauna Moll. Sveciæ*, pt. ii, p. 537.
- 1905, } *Pisidium nitidum*, var. *splendens* [pars] : JACKSON,  
Apr. } *Journ. Conch.*, xi, p. 170.
- 1905, } *Corneocyclas pulchella*, Jenyns : DALL, *Harriman Alaska*  
June. } *Exped.*, xiii, p. 144.

First recorded as British in 1832, by L. Jenyns. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

9. *Pisidium subtruncatum*, Malm.

Etym. :—Lat. *sub* + *truncatus*, somewhat shortened.

1822. *Cyclas obtusalis*, Lam. : NILSSON, *Hist. Moll. Sveciæ*, p. 101. [*Fide* Malm, *Götheborgs K. Vet. & Vitt. Samhäll. Handl.*, iii, 1855, p. 92.]
1831. *Cyclas fontinalis*, Drap. : ALDER, *Trans. Nat. Hist. Soc. Northumbld.*, i, p. 41; id., *o. c.*, ii, 1838, p. 341.
1832. *Pisidium pulchellum*, vars.  $\beta$  &  $\gamma$  : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 306, pl. xxi, f. 2 & 3.
- ?1840. *Pisidium jenynsii* [pars] : GRAY, in *Turton's Manual*, p. 285.
1849. *Pisidium pulchellum*, Jenyns, var.  $\beta$  &  $\gamma$  : FORBES & HANLEY, *Brit. Moll.*, ii, p. 129, pl. xxxvii, f. 12.

1854. *Pisidium henslowianum*, var. B. : BOURGUIGNAT, *Rev. et Mag. Zool. Sér. II*, tom. vi, p. 105. (*Amémit Malac.*, i, 1856, p. 51.)
- ?1854. *Pisidium dupuyanum*, Nob. : NORMAN, *Coup d'œil Cyclades Nord*, p. 5. [For figure see Baudon, *Mém. Soc. Acad. Oise*, iii, 1857, pl. iv, f. G.]
1855. *Pisidium subtruncatum*, n. sp. : MALM, *Götheborgs K. Vet. & Vit. Samhäll. Handl.*, iii, p. 92, figs.
1856. *Pisidium henslowanum*,  $\gamma$  *pallidum*, and ?  $\epsilon$  *dupuyanum* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 581.
1862. *Pisidium fontinale*, var. *pallida* [non Gassies] : JEFFREYS, *Brit. Conch.*, i, p. 21.
1873. *Pisidium* (*Fossarina*) *subtruncatum*, Malm : CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, pt. ii, p. 541.
1873. *Pisidium bartolomæum*, n. sp. : CLESSIN, *Correspond.-Blätt. zool.-min. Ver. Regensburg*, xxvii, p. 68.
1874. *Pisidium demissum*, n. : CLESSIN, *o. c.*, xxviii, p. 182. [*Teste* Odhner, who also records finding specimens labelled in error *demersum*.]
1874. *Pisidium turanicum*, n. sp. : CLESSIN, in Fedchenko, *Izvest. ĩmp. Obshchest. Lyubĭt. Estestvoz. Antrop. i Ethnogr. Moskva*, xi, vuip. 1, p. 38, pl. iii, f. 34.
- ?1875. *Pisidium tumidum*, Colbeau : CLESSIN, in Martini & Chemnitz, *Conch.-Cab.*, ed. 2, ix, abth. 3, Cycladeen, p. 47, pl. v, f. 13-15.
1878. *Pisidium poulsoni*, n. sp. : CLESSIN, *Malakozool. Blätt.*, 1878, p. 124, pl. v, f. 6.
- ?1898. *Pisidium costulatum*, n. sp. : WESTERLUND, *Ann. Mus. Zool. Acad. ĩmp. Sci. St. Petersb.*, 1898, p. 180.
1890. *Pisidium Imhofi*, n. : CLESSIN, *Moll.-Fauna Oesterr.-Ung.*, p. 790, f. 524. [*Teste* Odhner.]

First recorded as British in 1831, by J. Alder as *Cyclas fontinalis*, Drap. (See ref. above.)

British Distribution in Time : Cromerian to Recent.

#### 10. *Pisidium henslowanum* (Sheppard).

Etym. :—Named in honour of Prof. J. S. Henslow, of Cambridge.

1825. *Tellina henslowana*, Leach MS. : SHEPPARD, *Trans. Linn. Soc.*, xiv, p. 150.
1831. *Cyclas appendiculata* : TURTON, *Manual*, p. 15, f. 6.
1831. *Cyclas appendiculata* : LEACH, in Turton's *Manual*, p. 15, in synonym.



1832. *Pisidium henslowianum*, Nobis : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 308, pl. xxi, f. 6 & 7.
1832. *Pera Henslowiana*, Leach MSS. : } JENYNS, *t. c.*, p. 308,  
 1832. *Pera appendiculata*, Leach MSS. : } in synonym.
1840. } *Pisidium Henslowianum*, Shepp. : GRAY, in Turton's  
 Apr. } *Manual*, new ed., p. 285, pl. i, f. 6.  
 Post } *Pisidium appendiculata*, Leach MSS. in Turton : BROWN,  
 Sept. } *Illust. Conch. Brit.*, ed. 2, p. 95, pl. xxxix,  
 1840. } f. 25.
1845. *Pisidium appendiculata*, BROWN : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 120, pl. xxiv, f. 1a.
1849. } *Piscidium Henslowiana* : BROWN, *Illust. Foss. Conch.*,  
 [1846?]} p. 210, pl. lxxxvi, f. 27.
1849. *Pisidium henslowianum*, Sheppard : FORBES & HANLEY, *Brit. Moll.*, ii, p. 131, pl. xxxvii, f. 11.
1852. *Pera appendiculata* : LEACH, *Moll. Brit. Synop.*, p. 292.
1854. *Pisum henslowianum*, Shepp. : DESHAYES, *Cat. Conch. Brit. Mus.*, ii, p. 278.
1855. *Pisidium henslowianum*, var. *nucleus* ("non appendiculée") : DESHAYES, *t. c.*, p. 347.
1856. *Pisidium Henslowianum*, Shepp. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 581, pl. liii, f. 1-10.
1857. *Pisidium Henslowianum*, Shepp. : GRAY, in Turton's *Manual*, new ed., p. 267.
1858. *Musculium henslowianum*, Shepp. : H. & A. ADAMS, *Genera Moll.*, ii, p. 451.
1859. *Pisidium henslowianum* : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 37.
1862. *Pisidium fontinale*, var. 1, *henslowiana* : JEFFREYS, *Brit. Conch.*, i, p. 21.
1863. *Pisidium Henslowianum*, Sheppard : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 234, figs.
1873. *Pisidium (Fossarina) henslowianum* (Shepp.) : CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, pt. ii, p. 535.
1903. *Cornococylas (Tropidococylas) henslowianum*, Shepp. : DALL, *Proc. Biol. Soc. Washington*, xvi, p. 7.

First recorded as British in 1825, by R. Sheppard, as *Tellina henslowianum*. (See ref. above.)

British Distribution in Time : Pliocene to Recent.

#### 11. *Pisidium supinum*, A. Schmidt.

Etym. :—Lat. *supinus*, inclined backwards.

1850. *Pisidium supinum*, n. sp. : SCHMIDT, *Zeitschr. f. Malak.*, vii, p. 119.
1855. *Pisidium jaudouinianum*, nob. : GASSIES, *Actes Soc. Linn. Bordeaux*, xx, p. 345, pl. ii, f. 2.

1855. *Pisidium bonnafouxianum*, P. de Cess. : CESSAC, *Bull. Soc. Sci. Nat. La Creuse*, ii, p. 76. [For fig. see Baudon, *Mém. Soc. Acad. Oise*, iii, 1857, pl. iv, f. 1.]
1855. *Pisidium henslowianum*, Shepp. [pars]: MALM, *Göteborgs K. Vet. & Vitt. Samhäll. Handl.*, iii, p. 95.
1856. *Pisidium henslowianum*,  $\delta$  *bonnafouxianum* and  $\zeta$  *jaudonianum* : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 581.
1857. *Pisidium conicum*, nobis : BAUDON, *Mém. Soc. Acad. Oise*, iii, p. 362, pl. v, figs. B, B, B, B.
1858. *Musculium supinum*, Schmidt : H. & A. ADAMS, *Genera Moll.*, ii, p. 452.
1858. *Pisum supinum*, Schmidt : H. & A. ADAMS, *t. c.*, p. 660.
1870. *Pisidium henslowianum*, var.  $\beta$  *supinum* [sic], A. Schmidt : KREGLINGER, *Syst. Verzeich. Deutsch. Binnen-Moll.*, p. 357.
1871. *Pisidium henslowianum*, var.  $\beta$  *normale* [sic]: WESTERLUND, *Nova Acta R. Acad. Sci. Upsala*, Ser. III, vol. viii, no. 1, p. 158.
1873. *Pisidium baudonii*, n. sp. : CLESSIN, *Malak. Blätt.*, xx, p. 83, pl. iv, f. 1.
1873. *Pisidium supinum*, A. Schm. : CLESSIN, in Westerland, *Fauna Moll. Sveciæ*, pt. ii, p. 533.
1890. *Pisidium casertanum*, vars. *bonnafouxianum* & *jaudouinianum* [sic]: WESTERLUND, *Fauna Palæarct. Region*, vii, pp. 28 & 29.
1893. *Pisidium trigonum*, n. sp. : BOURGUIGNAT, in Locard, *Coquil. Eaux douces France*, p. 148. (Also *Ann. Soc. Agric. Lyon*, Sér. VII, tom. i, 1894, p. 148.)
1903. *Pisidium supinoides*, n. sp. : CLESSIN, in Futterer, *Durch Asien*, iii, p. 81.

First recorded as British in 1909, by B. B. Woodward (*Proc. Malac. Soc. Lond.*, viii, p. 330).

British Distribution in Time : Pliocene to Recent.

## 12. *Pisidium moitessierianum*, Paladilhe.

Etym. :—Named in honour of the author's friend, M. Moitessier.

1866. *Pisidium Moitessierianum* : PALADILHE, *Rev. & Mag. Zool.*, Sér. II, tom. xviii, p. 172, pl. xiii, f. 11–17. (*Nouv. Miscell. Malac.*, 1869, p. 29, pl. i, f. 11–17.)
1898. *Pisidium parvulum*, Clessin : JOHANSEN, *Vidensk. Meddel. Dansk. Naturh. Foren.*, lxvi, pp. 152, 159, 160. [*Non* Clessin.]

1913. *Pisidium parvulum*, Clessin : WOODWARD, *Cat. Brit. Pisidium*, p. 105, pls. ii, f. 6; iv, f. 8; xxvii, f. 3-6.
1913. *Pisidium supinum*, A. Schum. [pars] : WOODWARD, *o. c.*, pl. xv, f. 9 a-f, 15 a-f, 17 a-f; xxvi, f. 3 a-f, 12 a, b; xxvii, f. 1 a-f, j-o.
1913. *Pisidium henslowanum*, Shepp. [pars] : WOODWARD, *o. c.*, pl. xxvi, f. 13 a, b.
1918. *Pisidium torquatum*, n. nov. : STELFOX, *Journ. of Conch.*, xv, p. 299, pl. viii, f. 14-21.

First recorded as British in 1916, by R. A. Phillips, as *P. parvulum*, Clessin (*Irish Naturalist*, xv, p. 101).  
British Distribution in Time : Cromerian to Recent.

13. ***Pisidium tenuilineatum***, Stelfox.

Etym. :—Lat. *tenuis* + *lineatus*, finely striped.

1918. *Pisidium tenuilineatum*, species nova : STELFOX, *Journ. of Conch.*, xv, p. 296, pl. viii, f. 1 & 4-13.

First recorded as British in 1918, by A. W. Stelfox, as above.  
British Distribution in Time : Recent.

14. ***Pisidium steenbuchii*** (Möller).

Etym. :—Named in honour of the author's friend, Herr Steenbuch.

1842. *Cyclas steenbuchii*, nob. : MÖLLER, *Index Moll. Grœnlandiæ*, p. 20; id., Krøyer, *Naturhist. Tidsskr.*, iv, 1842, p. 93.
1851. *Pisidium fontinale*, var. ? : MIDDENDORFF, *Reise Sibiriens*, ii, thl. 1, p. 402.
1854. *Sphærium steenbuchii*, Möller : DESHAYES, *Cat. Conch. Brit. Mus.*, ii, p. 264.
1857. *Pisidium steenbuchii*, Möller : MÖRCH, in Rink, *Grønland*, etc., ii, till. 4, p. 91. (Reprint, *Fortegnel Grönl. Blöddyr*, p. 19.)
1869. *Pisidium pusillum* [pars] : JEFFREYS, *Brit. Conch.*, v, p. 150.
1873. *Pisidium (Rivulina) globulare*, Cless. : CLESSIN, in Westerland, *Fauna Moll. Svec., Norv. et Daniæ*, p. 532.
1874. *Pisidium steenbuchii*, Mörch [sic] : CLESSIN, in Martini & Chemnitz, *Conch.-Cab.*, ed. 2, ix, abth. 3, Cycladeen, p. 35, pl. iii, f. 21, p. 22.
1886. *Pisidium hoyeri*, n. sp. : CLESSIN, in Esmarek & Hoyer, *Malak. Blätt.*, N.F. viii, p. 120.

1905. *Cornecocylas steenbuchii*, Möller : DALL, *Harriman Alaska Exped.*, xiii, p. 143.

1909. *Pisidium korotnevi*, n. sp. : LINDHOLM, in Korotneff, *Wissensch. Ergebn. Zool. Exped. Baikal-See*, iv, p. 85, pl. ii, f. 47, p. 48.

First recorded as British in 1910, by B. B. Woodward  
(*Proc. Malac. Soc. Lond.*, ix [p. 5, in error], p. 150).  
British Distribution in Time : Recent.

### 15. *Pisidium lilljeborgii*, Clessin.

Etym. :—Named in honour of the Swedish naturalist, W. Lilljeborg.

1862. *Pisidium nitidum*, var. *splendens*, Baudon : JEFFREYS, *Brit. Conch.*, i, p. 25. [*Non* Baudon.]

?1876. *Pisidium urinator*, n. sp. : CLESSIN, *Bull. Soc. Vaudoise Sci. Nat.*, xiv, p. 236, pl. iii, f. 3. [*Teste* Odhner.]

1886. *Pisidium lilljeborgii*, n. sp. : CLESSIN, in Esmark & Hoyer, *Malak. Blätt.*, N.F. viii, p. 119.

1889. *Pisidium alpicola*, Cless. [n. n.] : CLESSIN, in Suter, *Malak. Blätt.*, N.F. xi, p. 191.

1890. *Pisidium (Fossarina) loveni*, Clessin : CLESSIN, *Moll. Oesterreich-Ungarns*, p. 765 [for the preceding].

1890. *Pisidium (Fossarina) lilljeborgii*, Cless. : WESTERLUND, *Fauna Paläarct. Region*, vii, p. 24.

1909. *Pisidium nordenskiöldi*, var. *semenkevitschi*, nov. : LINDHOLM, in Korotneff, *Wissensch. Ergebn. Zool. Exped. Baikal-See*, iv, p. 86, pl. ii, f. 49, 50.

First recorded as British in 1910, by B. B. Woodward  
(*Proc. Malac. Soc. Lond.*, ix, p. 5).  
British Distribution in Time : Cromerian to Recent.

### 16. *Pisidium hibernicum*, Westerlund.

Etym. :—Lat. *Hibernia*, Ireland.

?1832. *Pisidium obtusale*, var. : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 301. [*Fide* Oldham.]

1894. *Pisidium (Fossarina) hibernicum*, n. sp. : WESTERLUND, *Nachrichtsbl. Deutsch. Malak. Gesell.*, xxvi, p. 205.

1895. *Pisidium (Fossarina) hibernicum*, Westerl. : SCHARFF, *Irish Naturalist*, iv, p. 335, figs.

First described as British in 1894, by C. A. Westerlund.  
(*See* ref. above.)  
British Distribution in Time : Holocene and Recent.

17. *Pisidium obtusalastrum*, B. B. Woodward.

Etym. :—*Obtusalis* (from Lat. *obtusus*, blunt), a specific name  
+ *-aster*, somewhat resembling.

1818. *Cyclas obtusalis* : LAMARCK, *Hist. Anim. sans Vert.*, v, p. 559 (id., 2nd ed., vi, 1835, p. 269).
1821. *Pisidium obtusale*, Lam. (?) : PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 125, pl. v, f. 21, 22.
1832. *Pisidium obtusale*, Pfeiff. : JENYNS, *Trans. Camb. Phil. Soc.*, iv, p. 301, pl. xx, f. 1-3.
1832. *Pera gibba*, Leach MSS. : JENYNS, *l. c.*, p. 301, in synonym. [Alder had already applied the name in 1831, to a form which was probably *personatum*.]
1837. *Pisidium fontinale*, var. *obtusale*, mili : HELD, *Isis*, 1837, col. 306.
- 1840, } *Pisidium obtusale*, Pfeiffer : GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 282, pl. xii, f. 149.
- Post } *Pisidium obtusale*, Alder : BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 94, pl. xxxix, f. 24.
1840. }  
1840. }
1843. *Cyclas fontinalis*, var. *B. obtusalis* : DUPUY, *Essai Moll. Gers.*, p. 89.
1843. *Cyclas obtusalis*, Lam. : HANLEY, *Cat. Rec. Bivalve Shells*, p. 90.
1845. *Pisidium obtusale*, Alder : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 120, pl. xxiv, f. 9.
1849. *Pisidium obtusale*, Pfeiffer : FORBES & HANLEY, *Brit. Moll.*, ii, p. 120, pl. xxxvi, f. 1.
1852. *Pera gibba* [pars] : LEACH, *Moll. Brit. Synop.*, p. 292.
1854. *Pisum obtusale*, Lamk. : DESHAYES, *Cat. Conch. Brit. Mus.*, ii, p. 279.
1855. *Pisidium globulosum*, nob. : GASSIES, *Actes Soc. Linn. Bordeaux*, xx, p. 348, pl. ii, f. 8.
1856. *Pisidium obtusale*, Lam. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 588, pl. iii, f. 43-46.
1857. *Pisidium obtusale*, Pfeiffer : GRAY, in Turton's *Manual*, new ed., p. 264, pl. xii, f. 149.
1857. *Pisidium casertanum*, var. *G. globulosum*, Gass. : BAUDON, *Mém. Soc. Acad. Oise*, iii, pp. 343 & 348.
1858. *Musculium obtusale*, Pfeiff. : H. & A. ADAMS, *Genera Moll.*, ii, p. 452.
1859. *Pisidium pusillum*, var. *obtusalis* : JEFFREYS, *Ann. & Mag. Nat. Hist.*, Ser. III, vol. iii, p. 37.
1862. *Pisidium nitidum*, Jenyns : JEFFREYS, *Brit. Conch.*, i, p. 25; v, pl. i, f. 8. [Non Jenyns.]
1863. *Pisidium obtusale*, Lamarck : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 229, figs.
1871. *Pisidium* (*Cycladina*) *obtusale* : CLESSIN, *Malak. Blätt.*, xviii, p. 189.

1873. *Pisidium scholtzii*, n. sp.: CLESSIN, *Malak. Blätt.*, xx, p. 23, pl. i, f. 1.
1873. *Pisidium* (*Fossarina*) *scholtzi*, Clessin: CLESSIN, in Westerlund, *Fauna Moll. Sveciæ*, pt. ii, p. 540.
1873. *Pisidium* (*Fossarina*) *obtusale*, C. Pfeiffer: CLESSIN, *t. c.*, p. 547.
- ?1902. *Pisidium raddei*, n. sp.: DYBOWSKI, *Nachrichtsbl. Deutsch. Malak. Gesell.*, xxxiv, p. 95; ROSSMÄSSLER, *Icon.*, N.F. x, f. 1810.
1903. *Corneocyclas* (*Cyclocalyx*) *scholtzii*, Cless.: DALL, *Proc. Biol. Soc. Washington*, xvi, p. 7.
1921. *Pisidium obtusalastrum*: B. B. WOODWARD, *Proc. Malac. Soc. Lond.*, xiv, p. 220.

First recorded as British in 1832, by L. Jenyns, as *P. obtusale*, Pfr. (See ref. above.)

British Distribution in Time: Pleistocene to Recent.

### 18. ?*Pisidium conventus*, Clessin.

Etym.:—So named because described by its author at the Meeting (Convention) of the "Dredge-Ausfluges der Zoolog. Section der 50. Naturf.-Versamml. zu Münich."

[To this species Dr. N. H. Odhner has referred on anatomical grounds some British specimens which, however, C. Oldham and other British authorities would refer on conchological grounds to one or other of the better-known British species. Odhner considers the following to be identical. (Cf. Odhner, *Arch. f. Mollkunde*, 1923, pp. 26-42.)]

1876. *Pisidium occupatum*, n. sp. [pars]: CLESSIN, *Bull. Soc. Vaudoise Sci. Nat.*, xiv, p. 237, pl. iii, f. 4.
1877. *Pisidium Conventus*, n. sp.: CLESSIN, *Malak. Blätt.*, xxiv, p. 181, pl. iii, f. 5.
1880. *Pisidium quadrangulum*, Clessin: CLESSIN, in Suter, *Zool. Anz.*, iii, p. 207. [*Nom. nud.*]
1880. *Pisidium fragillimum*, Clessin: CLESSIN, *t. c.*, p. 208. [*Nom. nud.*]
1880. *Pisidium asperi*, Clessin: CLESSIN, *t. c.*, p. 208. [*Nom. nud.*]
1880. *Pisidium prolongatum*, Clessin: CLESSIN, *t. c.*, p. 208. [*Nom. nud.* Non Clessin, 1877.]
1889. *Pisidium asperi*, Cless.: CLESSIN, in Suter, *Malak. Blätt.*, N.F. xi, p. 26.
1890. *Pisidium fragillimum*, Clessin: CLESSIN, *Moll. Fauna Oesterr.-Ung.*, p. 780, f. 514.
1890. *Pisidium quadrangulum*, Clessin: CLESSIN, *o. c.*, p. 781, f. 515.
1890. *Pisidium Studeri*, Clessin: CLESSIN, *o. c.*, p. 782, f. 516. [*Nom. nov.* for *P. asperi* of 1880 & ?1889.]



1890. *Pisidium prolongatum*, Clessin : CLESSIN, *o. c.*, p. 785, f. 519. [= *prolongatum* of 1880 not of 1877.]  
 1890. *Pisidium Charpentieri*, m. : CLESSIN, *o. c.*, p. 787, f. 521.  
 1899. *Pisidium clessini*, n. sp. [pars] : SURBECK, *Rev. Suisse Zool.*, vi, p. 482, pl. xii, f. 6-15.  
 1907. *Pisidium miliolum*, n. sp. : CLESSIN, *Nachrbl. Deutsch. Malak. Gesell.*, xxxix, p. 8.  
 1908. *Pisidium tornense*, n. sp. : ODHNER, *Naturw. Untersuch. Sarekgebirges*, iv, p. 154, pl. iii, f. 9-13.

Fam. : UNIONIDÆ.<sup>1</sup>

## Genus : 1. ANODONTA, Lamarck.

Etym. :—Gr. ἀν- + ὀδούς, without teeth.

Type :—*Mytilus cygneus*, Linnæus.

(*Mytilus*, vett. auctt.)

1792. *Anodontites* [pars] : BRUGUIÈRE, *Journ. Hist. Nat.*, i, p. 134.  
 1798. *Anodontites* : CUVIER, *Tabl. Element*, p. 424.  
 1798, } *Musculus* [pars] : BOLTEN, *Mus. Bolt.*, ii, p. 156.  
 Sept. }  
 1799. *Anodonta* : LAMARCK, *Mém. Soc. Hist. Nat. Paris*, i, p. 87.  
 \*1810. *Cista* : HUEBNER, *Epist.*, i. [*Teste Menke, Zeitschr. f. Malak.*, v, 1848, p. 56.]  
 1815. *Anodon* : OKEN, *Lehrb. Naturg.*, iii, *Zool. abth.* 1, p. 238.  
 1816. *Anodontes*, Brug. : CUVIER, *Règne Anim.*, ii, 1817 [*i.e.* Dec. 1816], p. 472. [*Non Bruguière.*]  
 1828. *Anadonta*, Brug. : KLEEBOEG, *Moll. Boruss. Syn.*, p. 8. [*Non Bruguière.*]  
 1829. *Symphynota* : LEA, *Trans. Amer. Phil. Soc.*, iii, p. 442.  
 1836. *Margarita* [pars] : LEA, *Synop. Fam. Naïad.*, ed. 1, p. 48.  
 1852. *Margarita* [pars] : LEA, *o. c.*, ed. 3, p. 47.

[No attempt has been made to identify with British all the innumerable so-called species of *Anodonta* founded by continental writers on uncertain external characters; only such as could be satisfactorily identified are included.]

1. *Anodonta cygnea* (Linné).

Etym. :—Lat. *cygneus*, pertaining to a swan.

1758. *Mytilus cygneus* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 706, no. 218.

<sup>1</sup> For description and nomenclature of the British species, See KENNARD, SALISBURY & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, 1925, pp. 267-85.

1767. *Mytilus cygneus* : LINNÆUS, *o. c.*, ed. 12, p. 1158, no. 257.
1774. *Mytilus cygneus* : MÜLLER, *Verm. Hist.*, ii, p. 208.
1777. *Mytilus cygneus*, Linn. : PENNANT, *Brit. Zool.*, ed. 4, iv, Svo, p. 113; 4to, p. 96, pl. lvii, f. 78.
1778. *Mytilus cygneus* : DACOSTA, *Test. Brit.*, p. 214.
1791. *Mytilus cygneus* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3355, no. 15.
1791. *Mytilus stagnalis* : GMELIN, *t. c.*, p. 3362, no. 50.
1791. *Mytilus Zellensis* : GMELIN, *t. c.*, p. 3362, no. 51.
1792. *Anodontites cygneus* : BRUGUIÈRE, *Journ. Hist. Nat.*, i, p. 134.
1798. *Musculus cygneus* : BOLTEX, *Mus. Bolt.*, ii, p. 156, no. 22.
- 1799, } *Anodonta cygnea*, Lin. : LAMARCK, *Mém. Soc. Hist. Nat.*  
May. } *Paris*, i, p. 87.
1799. *Mytilus cygneus* : PULTENEY, *Cat. Dorset.*, p. 38.
- 1801, } *Anodontites cygnæa* : POIRET, *Coq. Aisne*, p. 109.  
Apr. }
- 1801, } *Anodonta variabilis*, b. *cygneus*, Linn. : DRAPARNAUD,  
July. } *Tabl. Moll. France*, p. 108.
1803. *Mytilus cygneus*, Lin. : MONTAGU, *Test. Brit.*, p. 170.
1805. *Anodonta cygnea*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 134, pl. xi, f. 6, xii, f. 1.
1807. *Mytilus cygneus*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 109, pl. iii, f. 2.
1808. *Mytilus stagnalis*, Gmel. : MONTAGU, *Test. Brit.*, Suppt., p. 68.
- 1813? *Mytilus anatinus* : FLEMING, *Edinb. Ency.*, vii, p. 99, pl. cciv, f. 14.
1813. *Mytilus cygneus*, Linn. : RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 40, pl. xii, f. 2.
1815. *Anodon cygneum* : OKEN, *Lehrb. Naturg.*, iii, abth. 1, p. 238.
1817. *Mytilus cygneus*, Linn. : DILLWYN, *Cat. Shells*, i, p. 315.
- ?1819. *Anodonta sulcata* : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 85. (Fig. cit. *Ency. méth.*, Vers, pl. ccii, f. 1.)
1819. *Mytilus dentatus* : TURTON, *Conch. Dict.*, p. 115. [Cf. his *Conch. Ins. Brit.*, p. 240.]
1821. *Anodonta cellensis*, Schröter : C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 110, pl. vi, f. 1.
1821. *Anodonta cygnea*, Lam. : C. PFEIFFER, *t. c.*, p. 111, pl. vi, f. 4.
1822. *Mytilus incrassatus* : SHEPPARD, *Trans. Linn. Soc.*, xiii, p. 85, pl. v, f. 4.
1822. *Anodon cygneus*, Linn. : TURTON, *Conch. Ins. Brit.*, p. 239.
1822. *Anodon paludosus* : TURTON, *o. c.*, p. 240, pl. xv, f. 6.
1823. *Anodonta piscinalis* [pars] : NILSSON, *Hist. Moll. Svec.*, 1822 [*i.e.* 1823], p. 116,

1823. *Mytilus cygneus*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 423.
1825. *Anodonta ventricosa*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, ii, p. 30, pl. iii, f. 1-6.
1827. *Anodonta cygnea*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxvii, f. 1.
1829. *Symphynota cygnea*: LEA, *Trans. Amer. Phil. Soc.*, iii, p. 456.
1831. *Anodon cygneus*: TURTON, *Manual*, p. 17, f. 8.
1833. *Anodonta oblonga* (Millet): MILLET, *Mém. Soc. Agric. Angers*, i, p. 242, pl. xii, f. 1.
1836. *Anodonta attenuata*, mihi: HELD, *Isis*, xxix, col. 280.
1836. *Margarita* (*Anodonta*) *cygnea*, Drap.: LEA, *Synop. Naiades*, ed. 1, p. 48.
- 1840, } *Anodon cygneus*: GRAY, in Turton's *Manual*, new ed.,  
Apr. } p. 289, pl. i, f. 8.
- Post }  
Sept. } *Anodon cygneus*, Pfeiffer: BROWN, *Illust. Conch. Brit.*,  
1840. } ed. 2, p. 79, pl. xxviii, f. 1, xxviii\*, f. 1.
1844. *Anodonta elongata*, nob.: POTIEZ & MICHAUD, *Gall. Moll.*, ii, p. 141, pl. lv, f. 1.
1845. *Anodon cygneus*: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 99, pl. xi, f. 1, xii, f. 1.
1848. *Anodonta Milletii* (nobis): RAY & DROUËT, *Rev. Zool. Soc. Cuv.*, 1848, p. 237, pl. i.
- 1849, } *Anodonta Dupuyi*: RAY & DROUËT, *Rev. & Mag. Zool.*,  
Jan. } Sér. II, tom. i, p. 32, pls. i & ii.
- 1849, } *Anodonta subponderosa*, Dupuy: DUPUY, *Cat. Extramar.*  
Feb. } *Gallie Test.* [p. 3], no. 29; *Hist. Nat. Moll. France*, p. 607 (1852), pl. xvii, f. 14.
- 1849, } *Anodonta cygnea*, Linnæus: FORBES & HANLEY, *Brit.*  
Apr. } *Moll.*, ii, p. 155. [All the figs. represent  
*A. anatina*.]
- 1852, } *Anodontes Europæa*: LEACH, *Moll. Brit. Synop.*, p. 326.  
Feb. }
- 1852, } *Anodonta cygnea*, Linn.: DUPUY, *Hist. Nat. Moll.*  
June. } *France*, p. 601, pl. xv, f. 14.
- 1852, } *Margaron* (*Anodonta*) *cygnea*, Drap.: LEA, *Synop.*  
June. } *Naiades*, ed. 3, p. 47.
1856. *Anodonta cygnea*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 557, pl. xliii & xliv.
1857. *Anodon cygneus*: GRAY, in Turton's *Manual*, new ed., p. 271, pl. i, f. 8.
1862. *Anodonta cygnea*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 41; v, pl. iii, f. 2 [as *A. anatina*].
1863. *Anodonta cygnea*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 215, fig. p. 213.
1877. *Anodonta mutabilis*, Clessin, var. *cygnea*, Linné: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 436, f. 287.

1881. *Anodonta incrassata*, Sheppard: BOURGUIGNAT, *Hist. Moll. Acéph. Europ.*, p. 304.  
 1890. *Anodonta (Euanodonta) cygna*, Lin.: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 199.

First recorded as British in 1681, by M. Lister (*Hist. Anim. Angl.*, Append., p. 10, pl. i, f. 3).

British Distribution in Time: Pleistocene to Recent.

## 2. *Anodonta anatina* (Linné).

Etym. :—Lat. *anatinus*, pertaining to a duck.

1758. *Mytilus anatinus*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 706, no. 219.  
 1767. *Mytilus anatinus*: LINNÆUS, *o. c.*, ed. 12, p. 1158, no. 258.  
 1774. *Mytilus anatinus*: MÜLLER, *Verm. Hist.*, ii, p. 207.  
 1774. *Mytilus radiatus*: MÜLLER, *t. c.*, p. 209.  
 1777. *Mytilus anatinus*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 113; 4to, p. 97, pl. lxxviii, f. 79.  
 1778. *Mytilus anatinus*: DACOSTA, *Test. Brit.*, p. 215, pl. xv, f. 2.  
 1791. *Mytilus anatinus*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3355, no. 16.  
 1792. *Anodontites anatinus*: BRUGUIÈRE, *Journ. Hist. Nat.*, i, p. 134.  
 1798. *Anodontites anatinus*: CUVIER, *Tabl. Élém.*, p. 425.  
 1798. *Mytilus anatinus*, Linn.: CUVIER, *o. c.*, p. 425, in synon.  
 1798, } *Musculus anatinus*: BOLTEN, *Mus. Bolt.*, ii, p. 157,  
 Sept. } no. 23.  
 1799. *Mytilus anatinus*: PULTENEY, *Cat. Dorset.*, p. 38.  
 1801, } *Anodonta anatina*, n.: LAMARCK, *Syst. Anim. s. Vert.*,  
 Jan. } p. 114.  
 1801, } *Anodontites anatina*: POIRET, *Coq. Aisne*, p. 109.  
 Apr. }  
 1801, } *Anodonta variabilis*, a. *anatinus*, Linn.: DRAPARNAUD,  
 July. } *Tabl. Moll. France*, p. 108.  
 1801, } *Anodonta variabilis*, c. *radiatus*, Mull.: DRAPARNAUD,  
 July. } l. c.  
 1803. *Mytilus anatinus*, Lin.: MONTAGU, *Test. Brit.*, p. 171.  
 1803. *Mytilus avonensis*: MONTAGU, *o. c.*, p. 172.  
 1805. *Anodonta anatina*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 133, pl. xii, f. 2.  
 1807. *Mytilus cygneus*, var.  $\beta$ : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 109, pl. iii A, f. 3.  
 1807. *Mytilus anatinus*, Linn.: MATON & RACKETT, *t. c.*, p. 110, pl. iii A, f. 1 & 4.  
 1813. *Mytilus anatinus*, Linn.: RACKETT, in *Pulteney, Cat. Dorset.*, ed. 2, p. 40, pl. xiii, f. 6.

- 1813? *Mytilus cygneus*: FLEMING, *Edinb. Ency.*, vii, p. 99, pl. ccv, f. 16.
1817. *Mytilus stagnalis*, Gmel.: DILLWYN, *Cat. Shells*, i, p. 316.
1817. *Mytilus cygneus*, Linn.: DILLWYN, *t. c.*, p. 317.
1817. *Mytilus fucatus*, Solander MS.: DILLWYN, *t. c.*, p. 317.
1819. *Anodonta intermedia*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 86. [Figd. *Ency. Méth.*, Vers, pl. cci, f. 2.]
1821. *Anodonta anatina*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 112, pl. vi, f. 2.
1821. *Anodonta intermedia*, Lam.: C. PFEIFFER, *t. c.*, p. 113, pl. vi, f. 3.
- 1822, } *Anodon Anatinus*, Linn.: TURTON, *Conch. Ins. Brit.*,  
Feb. } p. 240.
- 1822, } *Anodon Avonensis*, Montagu: TURTON, *o. c.*, p. 241.  
Feb. }
1822. *Anodonta palustris*, Dorbigny [MS.]: F[ÉRUSSAC], *Dict. Class. Hist. Nat.*, i, p. 397.
1822. *Mytilus macula*: SHEPPARD, *Trans. Linn. Soc.*, xiii, p. 86, pl. v, f. 6.
1823. *Anodonta piscinata* [pars]: NILSSON, *Hist. Moll. Svcc.*, 1822 [i. e. 1823], p. 116.
1823. *Mytilus anatinus*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 423.
1823. *Mytilus stagnalis*: [BROWN], *l. c.*
1825. *Anodonta ponderosa*: C. PFEIFFER, *Naturg. Deutsch. Moll.*, ii, p. 31, pl. iv, f. 1-6.
1827. *Anodonta stagnalis*, Sowerby: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxvii, f. 2.
1827. *Anodonta anatina*, Lam.: BROWN, *o. c.*, pl. xxviii, f. 1 & 2.
1828. *Anadonta* [sic] *anatina*, Linn.: KLEEBERG, *Moll. Boruss. Syn.*, p. 37.
1831. *Anodon cygneus* [pars]: TURTON, *Manual*, p. 17.
1836. *Anodonta rostrata*, Kok.: ROSSMÄSSLER, *Icon.*, bd. i, hft. 4, p. 25, f. 284.
- 1840, } *Anodon cygneus* [pars]: GRAY, in Turton's *Manual*,  
Apr. } new ed., p. 290, fig. on p. 288.
- Post } *Anodon cygneus*, vars.: BROWN, *Illust. Conch. Brit.*,  
Sept. } ed. 2, p. 79, pl. xxviii, f. 1, xxviii\*, f. 2-9,  
1840. } xxix, f. 1 & 2, xxx, f. 1-8.
1843. *Anodonta Rossmassleriana*: DUPUY, *Essai Moll. Gers*, p. 74.
- ?1844. *Anodonta coarctata*, nob.: POTIEZ & MICHAUD, *Gall. Moll.*, ii, p. 142, pl. lv, f. 2.
1845. *Anodon cygneus*, vars.: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 101, pl. xiii to xviii, f. 1.

- 1849, } *Anodonta Rayii*, Dupuy: DUPUY, *Cat. Extramar. Galliae Test.* [p. 3], no. 21; *Hist. Moll. France*, p. 614 (1852), pl. xx, f. 22. [Germain makes this a synonym of *Pseudanodonta clongata*.]  
Feb. }
- 1849, } *Anodonta cygnea*, Linnæus, var.: FORBES & HANLEY, *Brit. Moll.*, ii, p. 155, pl. xxxix, f. 3, xl, f. 2, 3, xli, & pl. Q, f. 3.  
Apr. }
- 1852, } *Anodontes Europæa* [pars]: LEACH, *Moll. Brit. Synop.*,  
Feb. } p. 327.
- 1852, } *Anodonta anatina*, Linn.: DUPUY, *Hist. Nat. Moll. France*, p. 160, pl. xix, f. 13.  
June. }
- 1852, } *Anodonta Scaldiana*, Dupuy: DUPUY, *o. c.*, p. 613,  
June. } pl. xix, f. 12.
- 1852, } *Anodonta Moulinsiana*, Dupuy: DUPUY, *o. c.*, p. 616,  
June. } pl. xx, f. 19.
1856. *Anodonta anatina*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 558, pl. xlv, f. 1 & 2.
1856. *Anodonta variabilis*, Drap.: MOQUIN-TANDON, *t. c.*, p. 561, pl. xlv, f. 5 & 6.
1856. *Anodonta Avonensis*, Mont.: MOQUIN-TANDON, *t. c.*, p. 562, pl. xlvi, f. 7 & 8.
1857. *Anodon cygneus* [pars]: GRAY, in Turton's *Manual*, new ed., p. 272, fig. on p. 270.
1862. *Anodonta anatina*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 43; v, pl. iii, f. 1 as *A. cygnea*.
1863. *Anodonta cygnea* [pars]: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 215, figs. on pp. 213 & 215.
1877. *Anodonta mutabilis*, Clessin, var. *anatina*, Linné: CLESSIN *Deutsch. Excur. Moll. Fauna*, p. 443, f. 290.
1881. *Anodonta gallica*: BOURGUIGNAT, *Hist. Moll. Acéph. Europ.*, p. 123.
1881. *Anodonta Browni*: BOURGUIGNAT, *o. c.*, p. 222.
1881. *Anodonta maculata* [= *macula*, Shepp.]: BOURGUIGNAT, *o. c.*, p. 285.
1881. *Anodonta Racketti*: BOURGUIGNAT, *o. c.*, p. 291. [= *A. cygneus*, var.  $\beta$  of Maton & Rackett.]
1881. *Anodonta Avonica* [= *Avonensis*, Mont.]: BOURGUIGNAT, *o. c.*, p. 304.
1881. *Anodonta subrhombica*, Brown, [as var. of *A. cygneus*]: BOURGUIGNAT, *o. c.*, p. 362.
1881. *Anodonta contorta*, Brown [as var. of *A. cygneus*]: BOURGUIGNAT, *o. c.*, p. 371.
1890. *Anodonta (Euanodonta) anatina*, Lin.: WESTERLUND, *Fauna Palæarct. Region*, vii, p. 255.

First recorded as British in 1678, by M. Lister (*Hist. Anim. Angl.*, p. 146, pl. ii, f. 29).

British Distribution in Time: Pleistocene to Recent.



Genus : 2. **PSEUDANODONTA**, Bourguignat.

Etym. :—Gr. ψευδής false + *Anodonta*, a Mollusean genus.

Type :—*Anodonta complanata* (Ziegler MS.), Rossmässler. (Selected by Westerlund, 1902. The original specimen being lost its exact identity is uncertain, but it was near to, if not identical with, the *A. elongata* of Hollandre.)

(*Anodonta*, vett. auctt.)

1876. *Pseudanodonta*, sect. 2 of *Pseudodon* : BOURGUIGNAT, *Bull. Soc. Sci. phys. & nat. Toulouse*, iii, p. 99.

1880. *Pseudanodonta* [as a genus] : BOURGUIGNAT, *Mat. Moll. Acéph. Europ.*, p. 11.

1902. *Pseudoanodonta*, Bgt. : WESTERLUND, *Rad Jugoslav. Akad.*, cli, p. 137.

[\* \* The genus was first announced as British by Dr. Haas in June, 1910 (*Proc. Malac. Soc. Lond.*, ix, p. 109), but the following references suggest that it had not been unobserved, though not recognized as a distinct form :—

MATON & RACKETT's figure (*Trans. Linn. Soc.*, viii, 1807, pl. iii A, f. 4) of Montagu's *Mytilus avonensis*, which they considered to be a variety of *Anodonta anatina*, suggests a form of *Pseudanodonta*, and Bourguignat comments (*Mat. Moll. Acéph. Europ.*, 1881, p. 297) on its resemblance to the *Anodonta falax* of Colbeau, which bears a similar resemblance to *Pseudanodonta*, but which Bourguignat retains in *Anodonta*.

BROWN's figure of Montagu's species (*Illustr. L. & F.-W. Conch. Brit.*, 1845, pl. xviii, f. 3) is quite different and obviously represents a dumpy form of *Anodonta anatina*. Bourguignat (*op. cit.*, p. 304) leaves it in that genus, but changes the trivial name to *avonica*.

BROWN's figure of a young *Anodonta cygnea* (*Illustr. Conch. Brit.*, 1827, pl. xxvii, f. 4; *ib.*, ed. 2, 1840?, pl. xxviii, f. 4; and its repetition in his *Illustr. L. & F.-W. Conch. Brit.*, 1845, pl. xi, f. 3) also suggests a form of *Pseudanodonta*, but sufficient details are lacking for a precise determination.]

1. ***Pseudanodonta minima*** (Millet).

Etym. :—Lat. *minimus*, least.

1833. *Anodonta minima* (Millet) : MILLET, *Mém. Soc. Agric. Angers*, i, livr. 3, p. 241.

?1835. *Anodonta complanata*, Ziegler : ROSSMÄSSLER, *Icon.*, i, p. 112, f. 68.

1836. *Anodonta elongata*: HOLLANDRE, *Faune dépt. Moselle*, p. 54.
- ?1840. *Anodon cygneus*, var. *complanata*, Ziegl. MSS.: GRAY, in Turton's *Manual*, new ed., p. 291, fig. [In the 1857 edition this variety is suppressed and the figure described as "*Anodon cygneus avonensis*."] ]
1844. *Anodonta minima*, Millet: JOBA, *Bull. Soc. Hist. Nat. Metz*, cahier 2, p. 44, pl. iv. [He quotes *A. elongata*, Hollandre, as a synonym.] ]
1849. *Anodonta Jobæ*, Dupuy: DUPUY, *Cat. Extramar. Galliae Test.* [p. 3], no. 18; *Hist. Nat. Moll. France*, 1852, p. 621.
1849. *Anodonta Normandi*, Dup.: DUPUY, *o. c.*, [p. 3], no. 21; *o. c.*, p. 620, pl. xvi, f. 15.
1852. *Anodonta elongata*, Holl.: DUPUY, *Hist. Nat. Moll. France*, p. 620, pl. xvi, f. 16.
1856. *Anodonta complanata*, Ziegl.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 560, pl. xlv, f. 3 & 4.
1890. *Anodonta (Pseudanodonta) elongata* Hollandre: WESTERLUND, *Fauna Paläarct. Region*, vii, p. 307.
1890. *Pseudanodonta Rothomagensis*: LOCARD, *Ann. Soc. Linn. Lyon*, xxxvi, pp. 56 & 134.
1890. *Pseudanodonta imperialis*: LOCARD, *t. c.*, pp. 57 & 136.

[*Anodonta coarctata*, Pot. & Mich. (*Gall. Moll.*, ii, 1844, p. 142) = *A. parvula*, Drouët (*Rev. & Mag. Zool.*, Sér. II, tom. iv, 1852, p. 249) is probably also a synonym; whilst

GERMAIN (*Bull. Soc. Amis Sci. Nat. Rouen*, 1907, pp. 164, 168) would also include: *Pseudanodonta Rayi* (Dupuy); *P. septentrionalis*, Locard; *P. Servaini*, Locard; *P. nantelica*, Locard; *P. aploa*, Locard; *P. berryacensis*, Dumas; *P. Dumasi*, Locard; and *P. Klettii* ([Rossm. MS.] Scholtz.)]

First recorded as British in 1910, by F. Haas (*Proc. Malac. Soc. Lond.*, ix, p. 109), as *P. elongata*.

British Distribution in Time: Holocene and Recent.

Genus: 3. **UNIO** (Linnæus MS.), Retzius.

Etym.:—Lat. *unio*, (masc.) a single large pearl, (fem.) unity.

Type:—*Mya pictorium*, Linnæus (selected by Gray, 1847).

(*Mya*, vett. auctt.)

1788. *Unio* [Linnæus MS.]: RETZIUS, *Nova Test. Genera*, p. 16.

1815. *Unionea*: RAFINESQUE, *Analyse Nature*, p. 147.

1815. *Lymnium*: OKEN, *Lehrb. Naturg.*, iii, *Zool. abth.* 1, p. 237.

1822. *Mysca*: TURTON, *Conch. Ins. Brit.*, p. 243.

1836. *Margarita* [pars]: LEA, *Synop. Fam. Naïad.*, ed. 1, p. 26.  
 1846. *Luticola*, Goldf.: AGASSIZ, *Nomcncl. Zool.*, Moll., p. 51.  
 1847. *Mysia*, Turton: GRAY, *Proc. Zool. Soc. Lond.*, xv, p. 196.  
 [Err. typ. pro *Mysca*; non *Mysia*, Leach.]  
 1852. *Margaron* [pars]: LEA, *Synop. Fam. Naïad.*, ed. 3, p. 30.

[Very many subgenera have been founded, mostly for American species, that are now ranked as distinct genera and are consequently here omitted.]

[No attempt has been made to identify with British all the innumerable so-called species of *Unio* founded by continental writers on uncertain external characters; only such as could be satisfactorily identified are included.]

### 1. *Unio pictorum* (Linnæus).

Etym. :—Lat. *pictor*, a painter.

1758. *Mya pictorum*: LINNÆUS, *Syst. Nat.*, ed. 10, p. 671, no. 19.  
 1767. *Mya pictorum*: LINNÆUS, *o. c.*, ed. 12, p. 1112, no. 28.  
 1774. *Mya pictorum*: MÜLLER, *Verm. Hist.*, ii, p. 211.  
 1777. *Mya pictorum*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 79; 4to, p. 67, pl. xliii, f. 17.  
 1778. *Mya pictorum*: DACOSTA, *Test. Brit.*, p. 228, pl. xv, f. 4.  
 1788. *Unio pictorum*: RETZIUS, *Nova Test. Genera*, p. 17.  
 ?1788. *Unio ovalis*: RETZIUS, *l. c.*  
 1791. *Mya pictorum*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3218, no. 3.  
 1799. *Mya ovalis*: PULTENEY, *Cat. Dorset.*, p. 27.  
 1801. *Mya ovalis*: DONOVAN, *Brit. Shells*, iii, pl. lxxxix.  
 1801. ) *Unio pictorum*: DRAPARNAUD, *Tabl. Moll. France*,  
 July.) p. 106.  
 1803. *Mya pictorum*, Lin.: MONTAGU, *Test. Brit.*, p. 36.  
 1805. *Unio pictorum*, Linn.: DRAPARNAUD, *Hist. Moll. France*, p. 131, pl. xi, f. 1-3.  
 1807. *Mya Batava*: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 37.  
 1813. *Mya pictorum*: RACKETT, in Pulteney, *Cat. Dorset.*, ed. 2, p. 28, pl. xii, f. 4.  
 1815. *Lymnium pictorum*: OKEN, *Lehrbuch Naturg.*, iii, abt. 1, p. 237.  
 1817. *Mya pictorum*, Linn.: DILLWYN, *Cat. Shells.*, i, p. 49.  
 1819. *Unio rostrata*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 77.  
 1820. *Unio rostratus*, mihi: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 93. (In reprint, "Syst. Verzeichn.," p. 30.)

1820. *Unio inflatus*, mihi : STUDER, *l. c.* (*l. c.*).
1821. *Unio rostrata*, Lam. : C. PFEIFFER, *Naturg. Deutsch. Moll.* i, p. 114, pl. v, f. 8.
1821. *Unio pictorum*, Lam. : C. PFEIFFER, *t. c.*, p. 115, pl. v, f. 9 & 10.
1822. { *Mysca batava* : TURTON, *Conch. Ins. Brit.*, p. 244.  
*Mysca pictorum* : TURTON, *o. c.*, p. 245.  
*Mysca ovata* : TURTON, *o. c.*, p. 246.
1823. *Unio limosus* : NILSSON, *Hist. Moll. Svcc.*, 1822 [*i. e.* 1823], p. 110.
1823. *Mya ovata* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 405. [Quotes pl. in his *Illust. Conch. Brit.*, ed. 1.]
- 1823, } *Unio ovalis* : SOWERBY, *Genera Shells*, no. xvi, "Unio,"  
 July. } [p. 3], f. 1.
1826. *Unio Turtoni*, Nob. : PAYRAUDEAU, *Cat. Moll. Corse*, p. 65, pl. ii, f. 2 & 3.
1827. *Unio ovata*, BROWN'S MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxvi, f. 4.
1828. *Unio Batava* : FLEMING, *Brit. Anim.*, p. 416.
1831. *Unio Deshayesii*, nobis : MICHAUD, *Complém. Hist. Moll. France Drap.*, p. 107, pl. xvi, f. 30.
1831. *Mysca pictorum* : TURTON, *Manual*, p. 20, f. 11.
1831. *Mysca ovata* : TURTON, *o. c.*, p. 21, f. 12.
1836. *Margarita (Unio) pictorum*, Lam. : LEA, *Synop. Naiades*, ed. 1, p. 36.
- 1840, } *Unio pictorum*, Linn. : GRAY, in Turton's *Manual*, new  
 Apr. } ed., p. 295, pl. ii, f. 11.
- Post } *Unio pictorum*, Lamarek : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 81, pl. xxxi, f. 7-11.
1840. } *Unio Deshayesii*, Rossmassler : BROWN, *o. c.*, p. 81,  
 Post } pl. xxxii, f. 1-4.
- Sept. } *Unio rostrata*, Kokeil Museum : BROWN, *o. c.*, p. 82,  
 1840. } pl. xxxii, f. 9-12.
1840. *Unio elongatula*, Pfeiffer : PICARD, *Bull. Soc. Linn. Nord France*, i, p. 372. [*Non Pfeiffer.*]
1842. *Unio longirostris*, Z. : ROSSMÄSSLER, *Icon.*, Hft. xi (= Bd. ii, hft. 5), p. 13, f. 738.
- \*1843. *Unio Arduisianus* : REYNIÉS, *Lettre à Moq.-Tand.*, p. 5, pl. i, f. 7 & 8. [Index Animalium MS. Notes.]
1844. *Unio ponderosus*, Spitzzi : ROSSMÄSSLER, *Icon.*, Hft. xii (= Bd. ii, hft. 6), p. 31, f. 767.
1845. *Unio pictorum*, Lamarek : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 107, pl. xix, f. 1-4; xxvii, f. 7.
1845. *Unio Deshayesii*, Rossmassler : BROWN, *o. c.*, p. 108, pl. xx, f. 3, 4.

1845. *Unio rostrata*, Kokeil Museum : BROWN, *o. c.*, p. 109, pl. xx, f. 1, 2.
1845. *Unio aleronii* : COMPANYO & MASSOT, [*Bull.*] *Soc. Agric. Pyr.-Orient.*, vi, pt. 2, p. 234, pl., f. 2.
- ?1845. *Unio dactylus*, spec. nov. : MORELET, *Hist. Moll. Port.*, p. 110, pl. xiv, f. 2.
- ?1845. *Unio mucidus*, spec. nov. : MORELET, *o. c.*, p. 111, pl. xiv, f. 3.
1849. *Unio pictorum*, Linnæus : FORBES & HANLEY, *Brit. Moll.*, ii, p. 142, pl. xxxix, f. 1.
1852. *Unio pictorum*, Linn. : LEACH, *Moll. Brit. Synop.*, p. 324.
1852. *Margaron (Unio) pictorum*, Retz. : LEA, *Synop. Naidæ*, ed. 3, p. 36.
1856. *Unio (Lymnium) Requiennii*, Mich. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 574, pl. 1, f. 5-7.
1856. *Unio (Lymnium) pictorum*, Linn. : MOQUIN-TANDON, *t. c.*, p. 576, pl. 1, f. 8-10; li, f. 1-10.
1857. *Unio pictorum*, Linn. : GRAY, in Turton's *Manual*, new ed., p. 279, pl. ii, f. 11.
1862. *Unio pictorum*, Linné : JEFFREYS, *Brit. Conch.*, i, p. 34; v, pl. ii, f. 2.
1863. *Unio pictorum*, Linnæus : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 221, fig.

First recorded as British in 1674, by M. Lister (*Phil. Trans.*, ix, p. 99, pl. ii, f. 27).

British Distribution in Time : Pleistocene to Recent.

## 2. *Unio tumidus*, Retzius.

Etym. :—Lat. *tumidus*, swollen.

- ?1758. *Mya pictorum* [pars] : LINNÆUS, *Syst. Nat.*, ed. 10, p. 671, no. 19.
- ?1767. *Mya pictorum* [pars] : LINNÆUS, *o. c.*, ed. 12, p. 1112, no. 28.
- ?1774. *Mya pictorum* [pars] : MÜLLER, *Verm. Hist.*, ii, p. 211.
- ?1777. *Mya pictorum* [pars] : PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 79; 4to, p. 67.
- ?1778. *Mya pictorum* [pars] : DACOSTA, *Test. Brit.*, p. 228.
1788. *Unio tumidus* : RETZIUS, *Nova Test. genera*, p. 17.  
[Frequently, but erroneously attributed to Philipsson, who was respondent for, not author of, the thesis.]
- ?1791. *Mya pictorum* [pars] : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3218, no. 3.
1801. *Mya depressa* : DONOVAN, *Brit. Shells*, iii, pl. ci.
1801. *Mya ovata* : DONOVAN, *t. c.*, pl. cxxii.
- 1801, } *Unio pictorum* [pars] : DRAPARNAUD, *Tabl. Moll. France*,  
July. } p. 106.

1803. *Mya ovalis*, Pult. : MONTAGU, *Test. Brit.*, p. 34. [Non Pulteney.]  
 [According to Montagu (*Test. Brit.*, p. 37) this species occurred in the Portland Collection under the name of *Mya ovalis*.]
1805. *Unio pictorum*, var.  $\gamma$  : DRAPARNAUD, *Hist. Moll. France*, p. 131, pl. xi, f. 4.
1807. *Mya pictorum*, Linn. : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 38.
1807. *Mya ovata* : MATON & RACKETT, *t. c.*, p. 39.
1817. *Mya ovata*, DONOVAN : DILLWYN, *Cat. Shells*, i, p. 50.
1819. *Unio pictorum* : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 77.
1820. *Unio ovatus*, mihi : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 94. (In reprint, "Syst. Verzeichn.," p. 30.)
1822. *Mysca solida* : TURTON, *Conch. Ins. Brit.*, p. 246.
1823. *Mya pictorum* : [BROWN], *Ency. Brit.*, ed. 6, vi, p. 405.  
 [Quotes plate in *Illust. Conch. Brit.*, ed. 1.]
1825. *Unio tumida*, Nilss. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, ii, p. 34, pl. vii, f. 2 & 3; viii, f. 1 & 2.
1827. *Unio pictorum*, BROWN'S MSS. : BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxvi, f. 2.
1831. *Unio rostratus* : MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 108, pl. xvi, f. 25.
1831. *Mysca solida* : TURTON, *Manual*, p. 22, f. 13.
- \*1833. *Unio inflatus* : HÉCART, *Mém. Soc. Agric. Valenciennes*, i, p. 145. [*Teste Moquin-Tandon*.]
1834. *Unio Michaudiana*, nob. : DES MOULINS, *Actes Soc. Linn. Bordeaux*, vi, p. 27.
1836. *Margarita (Unio) ovalis*, Flem. : LEA, *Synop. Naiades*, ed. 1, p. 35.
1837. *Unio arcuata*, Nobis : BOUCHARD-CHANTEREAUX, *Mém. Soc. Agric. Boulogne*, Sér. II, tom. i, p. 227, with pl.
- 1840, } *Unio tumidus*, Retzius : GRAY, in Turton's *Manual*,  
 Apr. } new ed., p. 297, pl. ii, f. 13.
- 1840, } *Mysca ovata*, Sw. : SWAINSON, *Treatise Malac.*, p. 379,  
 May. } f. 56.
- Post } *Unio tumidus*, Retzius : BROWN, *Illust. Conch. Brit.*,  
 Sept. } ed. 2, p. 82, pl. xxxii, f. 5-8.
1840. } *Unio ovalis*, Leach MSS. : BROWN, *o. c.*, p. 82, pl. xxxi,  
 Post } f. 12-14.  
 Sept. }
1845. *Unio tumidus*, Retzius : BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 110, pl. xxi, f. 5, 6, 8 & 9.
1845. *Unio ovalis*, Leach MSS. : BROWN, *o. c.*, p. 111, pl. xviii, f. 4 & 5.



1849. *Unio tumidus*, Retzius : FORBES & HANLEY, *Brit. Moll.*, ii, p. 140, pl. xl, f. 1.  
 1852. *Unio ovalis*, Mont. : LEACH, *Moll. Brit. Synop.*, p. 323.  
 1852. *Margaron (Unio) tumidus*, Retz. : LEA, *Synop. Naiades*, ed. 3, p. 36.  
 1856. *Unio (Lymnium) tumidus*, Philip. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 577, pl. li, f. 11-14.  
 1857. *Unio tumidus*, Retzius : GRAY, in Turton's *Manual*, new ed., p. 279, pl. ii, f. 13.  
 1862. *Unio tumidus*, Philippsson [*sic*] : JEFFREYS, *Brit. Conch.*, i, p. 32; v, pl. ii, f. 1, 1 a.  
 1863. *Unio tumidus*, Philippsson [*sic*] : REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 219, figs.  
 1875. *Unio Richensis* : HARTING, *Rambles*, p. 37, pl. iv, f. 1 & 2.

First recorded as British in 1686, by M. Lister (*Hist. Conch.*, ii, pl. cxlvii, f. 2).

British Distribution in Time : Pleistocene to Recent.

3. †**Unio cantianus**, Kennard & Woodward.

Etym. :—Lat. *Cantium*, the county of Kent.

1912. *Unio batavus*, Lam. : KENNARD, *Proc. Malac. Soc. Lond.*, x, p. 50. [*Non Lamarck.*]  
 1924. *Unio cantianus*, n. sp. : KENNARD & WOODWARD, *Proc. Malac. Soc. Lond.*, xvi, p. 136, figs.

First recorded as British in 1912, by A. S. Kennard, as *U. batavus*, Lam. (See ref. above.)

British Distribution in Time : Pleistocene.

4. †**Unio prestwichi**, Kennard & Woodward.

Etym. :—Named in honour of the celebrated geologist, Sir Joseph Prestwich.

1924. *Unio prestwichi*, sp. nov. : KENNARD & WOODWARD, *Quart. Journ. Geol. Soc.*, lxxx, p. 173, pl. ix, f. 1-6.

First recorded as British in 1924 as above.

British Distribution in Time : Pleistocene.

5. †**Unio littoralis**, Cuvier.

Etym. :—Lat. *littoralis*, pertaining to the shore.

1798. *Unio littoralis* : CUVIER, *Tabl. Elém.*, p. 425.  
 1801, *Unio littoralis*, n. : LAMARCK, *Syst. Anim. s. Vert.*, p. 114.  
 an. [Cites fig. in *Ency. Méthod.*, Vers, pl. ccxlviii, f. 2.] [*Non Poiret*, April, 1801.]

- 1801, } *Unio littoralis* : DRAPARNAUD, *Tabl. Moll. France*, p. 107.  
 July. }  
 1801, } *Mya crassa*, nob. : VALLOT, *Exer. Hist. Nat.*, p. 7.  
 Aug. } [Teste Drouët.]  
 1805. *Unio littoralis*, Cuv. : DRAPARNAUD, *Hist. Moll. France*,  
 p. 133, pl. x, f. 20.  
 1821. *Unio litoralis* [sic], Lam. : C. PFEIFFER, *Naturg. Deutsch.*  
*Moll.*, i, p. 117, pl. v, f. 12.  
 1823. *Unio crassus*, Retzius : NILSSON, *Hist. Moll. Svec.*, 1822  
 [i.e. 1823], p. 108. [Non Retzius.]  
 1831. *Unio subtetragona*, nobis : MICHAUD, *Compl. Hist.*  
*Moll. France Drap.*, p. 111, pl. xvi,  
 f. 23.  
 1831, } *Unio Draparnaldi*, nob. : DESHAYES, *Descript. Coq.*  
 Sept. } *Terrains*, p. 43, pl. xiv, f. 6.  
 1834. *Unio Pianensis*, nob. : FARINES, *Bull. Soc. Philom.*  
*Perpignan*, 1834, p. 57, pl. f. 1-3.  
 1836. *Margarita (Unio) litoralis*, Lam. : LEA, *Synop. Naiades*,  
 p. 34.  
 1839. *Unio antiquior* (Strickland) : MURCHISON, *Silurian*  
*System*, p. 555. [Nom. nud.]  
 1840. *Mysca (Potomida) litoralis* : SWAINSON, *Treatise Malac.*,  
 p. 379.  
 1849. *Unio Asterianus*, Dup. : DUPUY, *Cat. Extramar. Gallia*  
*Test.* [p. 4], no. 320; *Hist. Nat. Moll. France*,  
 p. 636, 1852, pl. xxiii, f. 9.  
 1852. *Margaron (Unio) litoralis*, Drap. : LEA, *Synop. Naiades*,  
 ed. 3, p. 34.  
 1853. *Potamida litoralis*, Lam. : MÖRCH, *Cat. Conch. Yoldi*,  
 ii, p. 47.  
 1856. *Unio (Lymnium) rhomboideus*, Schröt. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 568, pl. xlviii,  
 f. 4-9.  
 1857. *Unio (Niäa) litoralis*, Drap. : H. & A. ADAMS, *Genera*  
*Moll.*, ii, p. 493.  
 1858. *Unio antiquior*, Strickl. : JARDINE'S *Memoirs of Strick-*  
*land*, pp. 96 & 97.  
 1908. *Unio kinkelini*, Haas : HAAS, *Nachrbl. Deutsch. Malak.*  
*Gesell.*, xl, 1908, p. 177.  
 1911. *Unio (Rhombunio) litoralis*, Lam. : GERMAIN, *Bull.*  
*Mus. Hist. Nat. Paris*, 1911, p. 67.  
 1917. *Rhombunio litoralis*, Lam. : HAAS, *Bol. Soc. Aragon.*  
*Cicn. Nat.*, xvi, p. 77 (& p. 79).

First recorded as British in 1838, by G. B. Sowerby (II),  
 in J. Morris (*Mag. Nat. Hist.*, ii, p. 547).

British Distribution in Time : Pleistocene.

## Genus : 4. MARGARITIFERA, Schumacher.

Etym. :—Lat. *margarita*, a pearl + *fero*, I bear.

Type :—*Mya margaritifera*, Linné.

(*Mya*, *Unio*, etc., vett. auctt.)

1816. *Margartifera* [sic, err. typ.]: SCHUMACHER, *Övers. K. Dansk. Vidensk. Selsk. Forhandl.*, 1816, p. 7. [Genotype *M. fluviatilis*, n. nov. for *Unio margaritiferus*, Retzius. In the reprint of 1823 the name is further misprinted on p. vi, "*Margatifera*."]
1817. *Margaritana*: SCHUMACHER, *Essai nouv. Syst.*, i, p. 123.
1823. *Alasmodonta*, Say [pars]: BARNES, *Amer. Journ. Sci.*, vi, p. 277. [Say's genus did not include *M. margaritifera*.]
1828. *Alasmodon*: FLEMING, *Hist. Brit. Anim.*, p. 417. [This alteration of Say's name of *Alasmodonta* seems first to have been suggested by "a friend of the Editor" in Thomson's *Ann. Phil.*, xvi, p. 110.]
1836. *Margarita* [pars]: LEA, *Synop. Fam. Naïades*, ed. 1, p. 45.
1836. *Alasmadouta* [sic. pars]: JAY, *Cat. Shells*, ed. 2, p. 23.
1840. *Damaris* [Leach MS.]: GRAY, in Turton's *Manual*, new ed., p. 293.
- 1847, } *Damalis* [sic], Leach MSS. 1818: LEACH, commun.  
Oct. } J. E. Gray, *Ann. & Mag. Nat. Hist.*, xx,  
p. 273.
- 1847, } "*Baphia*, Gevers, 1787": } GRAY, *Proc. Zool. Soc.*,  
Nov. } "*Damalis* [sic] Leach, 1819": } xv, 1847, p. 196.  
[Meuschen in *Mus. Gevers.*, 1787, only used "*Baphie*" in the plural as a group name. Leach's name "*Damaris*" did not appear in the proofs issued in 1819.]
1851. "*Unionidium* . . . Mus. Berl., 1818": GRAY, *List Brit. Anim. in Brit. Mus.*, vii, p. 105. [A mis-citation from Lichtenstein, *Zool. Mus. Univ. Berlin*, ed. 2, 1818, p. 112, where Link's *Unionium* of 1807 is employed subgenerically. Link's name applies to marine forms including the Pearl Oyster.]
- 1852, } *Damaris*: LEACH, *Moll. Brit. Synop.*, p. 321.  
Feb. }
- 1852, } *Margaron* [pars]: LEA, *Synop. Fam. Naïades*, ed. 3,  
June. } p. 43.

1. †*Margaritifera auricularia* (Spengler).

Etym. :—Adjective from Lat. *auricula*, an ear.

1788. *Unio margaritiferus* [pars] : RETZIUS, *Nova Test. Genera*, p. 16.
1793. *Unio auricularius* : SPENGLER, *Skript. Naturh.-Selsk. Kjøbenhavn*, iii, hft. 1, p. 54. [Cf. Haas, *Vidensk. Med. Dansk. Naturh. For. Kjøbenhavn*, lxxv, 1913, p. 53.]
1801. *Unio margaritifera* : DRAPARNAUD, *Tabl. Moll. France*, p. 107.
1803. *Mya margaritifera* [pars] : MONTAGU, *Test. Brit.*, p. 33.
1805. *Unio margaritifera*, Linn. : DRAPARNAUD, *Hist. Moll. France*, p. 132, pl. x, f. 17, 18 [errore 8 & 16] & 19.
1807. *Mya margaritifera* [pars] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 40.
1819. *Unio sinuata* : LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 70. [C. Haas, *Abhandl. Senck. Naturf. Gesell.*, xxxii, p. 152, pl. xiii, f. 1-5.]
1825. *Unio sinuata*, Lam. : C. PFEIFFER, *Naturg. Deutsch. Moll.*, ii, p. 33, pl. vii, f. 4.
1827. *Unio crassissima*, Férussac [MS.] : DES MOULINS, *Bull. Hist. Nat. Soc. Linn. Bordeaux*, ii, p. 42.
1836. *Margarita (Unio) crassissima*, Fér. : LEA, *Synop. Naiades*, ed. 1, p. 40.
1837. *Unio arcuata*, nob. : BOUCHARD-CHANTEREAUX, *Mém. Soc. Agric. Boulogne, Sér. II*, tom. i, p. 227, pl. f, 1, 2.
1840. *Mysca (Potomida) sinuata*, Lam. : SWAINSON, *Treatise Malac.*, p. 379.
1856. *Unio (Lymnium) sinuatus*, Lam. : MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 567, pl. xlvi, f. 1-3.
1910. *Unio sinuatus*, Lam. : HAAS, *Abhandl. Senckenb. Naturf. Gesell.*, xxxii, p. 152, pl. xiii, f. 1-5.
1910. *Pseudunio sinuatus*, Lam. : HAAS, *Nachrbl. Deutsch. Malak. Gesell.*, xlii, p. 181.
1913. *Pseudunio auricularius*, Spengler : HAAS & SCHWARZ, *Abhandl. K. Bayer. Akad.*, xxvi, abth. 7, p. 3.
1916. *Margaritana auricularia*, Spglr. : HAAS, *Bol. Soc. Aragonesa*, xv, p. 33.

First recorded as British in 1909, by J. W. Jackson & A. S. Kennard (*Journ. of Conch.*, xii, p. 321), as *Unio margaritifer* var. *sinuata*, Lamk.

British Distribution in Time : Holocene.

2. *Margaritifera margaritifera* (Linné).

Etym. :—Lat. *margarita*, a pearl + *fero*, I bear.

1758. *Mya margaritifera* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 671, no. 20.

1767. *Mya margaritifera*: LINNÆUS, *o. c.*, ed. 12, p. 1112, no. 29.
1774. *Mya margaritifera*: MÜLLER, *Verm. Hist.*, ii, p. 210.
1777. *Mya margaritifera*, Linn.: PENNANT, *Brit. Zool.*, ed. 4, iv, 8vo, p. 80; 4to, p. 67, pl. xlvi, f. 18.
1778. *Mya margaritifera*: DACOSTA, *Test. Brit.*, p. 225, pl. xv, f. 3.
1788. *Unio margaritiferus* [pars]: RETZIUS, *Nova Test. genera*, p. 16.
1788. *Unio crassus*: RETZIUS, *o. c.*, p. 17.
1791. *Mya margaritifera*: GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3219, no. 4.
1803. *Mya margaritifera*, Linn.: MONTAGU, *Test. Brit.*, p. 33.
1807. *Mya margaritifera*, Linn.: MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 40.
1807. *Unio Lemovicinæ*: FÉRUSAC, *Essai méthod. Conchyl.*, p. 114.
1816. *Margaritifera* [sic] *fluviatilis*: SCHUMACHER, *Overs. K. Dansk. Vidensk. Selsk. Forhandl.*, 1816, p. 7.
- 1817, } *Mya margaritifera*, Linn.: DILLWYN, *Cat. Shells*, i,  
Jan. } p. 52.
- 1817, } *Margaritana fluviatilis*: SCHUMACHER, *Essai Syst. Test.*,  
Mar. } p. 124, pl. x, f. 4.
1819. *Unio elongata*: LAMARCK, *Hist. Anim. s. Vert.*, vi, pt. 1, p. 70.
1821. *Unio margaritifera*, Linn.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, i, p. 116, pl. v, f. 11.
1821. *Unio litoralis* [sic. pars]: C. PFEIFFER, *t. c.*, p. 117.
1823. *Unio elongatus*: NILSSON, *Hist. Moll. Svec.*, 1822 [*i. e.* 1823], p. 106.
1823. *Unio ater*: NILSSON, *o. c.*, p. 107.
1823. *Mya margaritifera*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 405.
- 1823, } *Alasmodonta arcuata*: BARNES, *Amer. Journ. Sci.*, vi,  
Apr. } p. 277, pl. xii, f. 20.
1827. *Unio elongata*, Lam.: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xxvi, f. 1.
1828. *Alasmodon margaritiferum*, Linn.: FLEMING, *Hist. Brit. Anim.*, p. 417.
1831. *Unio margaritiferus*: TURTON, *Manual*, p. 19, f. 9.
1831. *Unio roissyi*, nobis: MICHAUD, *Compl. Hist. Moll. France Drap.*, p. 112, pl. xvi, f. 28.
1836. *Margarita* (*Margaritana*) *margaritifer*, Lea: LEA, *Synop. Fan. Naiades*, ed. 1, p. 45.
1836. *Alasmodonta* [sic] *arcuata*, Barnes: JAY, *Cat. Shells*, ed. 2, p. 23.
- \*1840. *Unio brunnea*: BONHOMME, *Mém. Soc. Aveyr. Rodez*, ii, p. 430. [*Teste* Moquin-Tandon.]
- 1840, } *Alasmodon margaritiferus*, Linn.: GRAY, in *Turton's*  
Apr. } *Manual*, new ed., p. 293, pl. ii, f. 9.

- Post  
Sept. } *Alasmodon margaritiferus*, Fleming: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 83, pl. xxx\*, f. 1-4, xxxi, f. 1, 2, xxxii, f. 1-4, 13-15. [This includes five varieties.]  
1840. }
- 1840, } *Alasmodon elongatus*: THOMPSON, *Ann. & Mag. Nat. Hist.*, vi, p. 200.  
Nov. }
1841. *Alasmodon arcuata*, Barnes: GOULD, *Invert. Mass.*, p. 113, f. 75.
1845. *Alasmodon margaritiferus*, Fleming: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 112, pl. xxi, f. 12, xxii & xxiii. [This includes five varieties.]
1847. *Damalis* [sic] *margaritifera*, Leach MSS. 1818: LEACH, *commun. J. E. Gray, Ann. & Mag. Nat. Hist.*, xx, p. 273.
- 1849, } *Margaritana margaritifera*, Retz.: DUPUY, *Cat. Extramar. Gallie Test.* [p. 2], no. 213. (*Hist. Moll. France*, 1852, p. 623, pl. xxii, f. 14-16.)  
Feb. }
- 1849, } *Margaritana elongata*, Lam.: DUPUY, *o. c.*, no. 214  
Feb. } [Merged in synonym in the *Histoire*.]
- 1849, } *Unio margaritiferus*, Linnæus: FORBES & HANLEY, *Brit. Moll.*, ii, p. 146, pl. xxxviii [as *Alasmodonta margaritifera*.]  
Apr. }
- 1852, } *Damaris elongata*: LEACH, *Moll. Brit. Synop.*, p. 322.  
Feb. }
- 1852, } *Margaron (Unio) crassus*, Retz.: LEA, *Synop. Fam. Naiades*, ed. 3, p. 39.  
June. }
- 1852, } *Margaron (Margaritana) margaritifera*, Lea: LEA, *o. c.*,  
June. } p. 43.
1853. *Baphia margaritiferus*, L.: MÖRCH, *Cat. Conch. Yoldi*, ii, p. 48.
1856. *Unio (Margaritana) margaritifer*: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 566, pl. xlvii.
- 1857, } *Alasmodon margaritiferus*, Linn.: GRAY, in Turton's  
Sept. } *Manual*, new ed., p. 277, pl. ii, f. 9.
- ?1857, } *Unio (Bariosta) crassus*, Retz.: H. & A. ADAMS, *Genera*  
Sept. } *Moll.*, ii, p. 491.
- 1857, } *Baphia margaritifera*, Linn.: H. & A. ADAMS, *t. c.*,  
Sept. } p. 499.
1862. *Unio margaritifer*, Linné: JEFFREYS, *Brit. Conch.*, i, p. 37; v, pl. ii, f. 3.
1863. *Unio margaritifer*, Linnæus: REEVE, *L. & F.-W. Moll. Brit. Is.*, p. 223, fig.
1877. *Margaritana margaritifera*, Linné: CLESSIN, *Deutsch. Excur. Moll. Fauna*, p. 449, f. 293.

First recorded as British in 1681, by M. Lister (*Hist. Anim. Angl.*, Append., p. 11, pl. i, f. 1), from the River Tees.

British Distribution in Time: Holocene and Recent.



INTRODUCTIONS, NOT ESTABLISHED, BUT REPRESENTED BY A FEW LIVING EXAMPLES.

Fam. : CYCLOPHORIDÆ.

Genus : 1. **COCHLOSTOMA**, Jan.

Etym. :—Gr. κόχλος + στόμα, spiral mouthed.

Type :—*Helix septem-spiralis*, Razoumowsky.

(*Helix*, *Turbo*, *Cyclostoma*, vett. auctt.)

1820. *Cyclostoma* [pars]: STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 90. (In reprint, "Syst. Verzeichn.," p. 22.)
1821. *Pomatias*: HARTMANN, *Neue Alpina*, i, pp. 201, 204, 214. [*Non* Studer, 1789.]
1830. *Cochlostoma*, subg. 1 of *Cyclostoma*: JAN, *Conspect. Method. Test.*, p. 6.
1891. *Hartmannia*: NEWTON, *Ann. & Mag. Nat. Hist.*, Ser. VI, vol. vii, p. 346.
1902. *Cochlostoma* [as genus]: KOBELT, *Das Thierreich*, xvi, Cyclophoridae, p. 488.

Sub-gen. : **Cochlostoma**, s.s.

1830. *Cochlostoma*: JAN, *Conspect. Method. Test.*, p. 6.
1883. *Maculatus*: WESTERLUND, *Jahrb. Deutsch. Malak. Gesell.*, x, p. 68.
1885. *Personatus*, Westerld., 1883 [pars]: WESTERLUND, *Fauna Paläarct. Region*, v, p. 108.

Sub-gen. :—**Auritus**, Westerlund.

Etym. :—Lat. *auritus*, having ears, or, ear-shaped.

Type :—*Pomatias auritus* (Z.) Rossmässler.

1883. *Auritus*: WESTERLUND, *Jahrb. Deutsch. Malak. Gesell.*, x, p. 64.

1. **Cochlostoma** (s.s.) **septemspirale** (Razoumowsky).

Etym. :—Lat. *septem* + *spira*, having seven whorls.

1789. *Helix septem-spiralis*: RAZOUMOWSKY, *Hist. Nat. Jorat*, i, p. 278.
- 1801, } *Cyclostoma patulum* [var.] b: DRAPARNAUD, *Tabl. Moll.*  
July. } *France*, p. 39.
- 1801, } *Turbo striatus*, Nob.: VALLOT, *Exer. Hist. Nat.*, p. 6.  
Aug. } [*Teste* Drouët.]

1805. *Cyclostoma Maculatum*: DRAPARNAUD, *Hist. Moll. France*, p. 39, pl. i, f. 12.
1821. *Pomatias Studeri*, var.  $\beta$  [pars]: HARTMANN, *Neue Alpina*, i, p. 214.
1828. *Cyclostoma maculatum*, Drap.: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 43, pl. vii, f. 30.
1830. *Cyclostoma* (*Cochlostoma*) *maculata*, Fér.: JAN, *Conspect. Method. Test.*, p. 6.
1856. *Cyclostoma* (*Pomatias*) *septemspirale*, Razoum.: MOQUINTANDON, *Hist. Moll. France*, ii, p. 503, pl. xxxvii, f. 37 & 38.
1881. *Pomatias septemspirale*, Raz.: KOBELT, *Cat. Europ. Binnenconch.*, ed. 2, p. 135.
1883. *Pomatias* (*Maculatus*) *septemspiralis*, Razum.: WESTERLUND, *Jahrb. Deutsch. Malak. Gesell.*, x, p. 68.
1885. *Pomatias* (*Personatus*) *septemspiralis*, Raz.: WESTERLUND, *Fauna Paläarct. Region*, v, p. 118.
1902. *Cochlostoma* (s.s.) *septemspirale* (Razoum.): KOBELT, *Das Tierreich*, xvi, Cyclophoridae, p. 495, fig. p. 489.

Found in September, 1918, by H. C. Huggins among moss on a wall at Kearsney, near Dover, Kent. (*Journ. of Conch.*, xvi, 1919, p. 51.)

## 2. *Cochlostoma* (*Auritus*) *patulum* (Draparnaud).

Etym. :—Lat. *patulus*, open.

1801. *Cyclostoma patulum*: DRAPARNAUD, *Tabl. Moll. France*, p. 39.
1805. *Cyclostoma patulum*: DRAPARNAUD, *Hist. Moll. France*, p. 38, pl. i, f. 9–11.
1821. *Pomatias Studeri*, var.  $\beta$  [pars]: HARTMANN, *Neue Alpina*, i, p. 214.
1821. *Pomatias patulis* [sic]: HARTMANN, in Sturm's *Deutschl. Fauna*, vi, hft. 5, p. 49 in table.
1847. *Pomatias patulus*, Drap.: PFEIFFER, *Zeitschr. f. Malak.*, iv, p. 110.
1856. *Cyclostoma* (*Pomatias*) *patulum*, Drap.: MOQUINTANDON, *Hist. Moll. France*, ii, p. 505, pl. xxxvii, f. 39–41.
1883. *Pomatias* (*Auritus*) *patulus*, Drap.: WESTERLUND, *Jahrb. Deutsch. Malak. Gesell.*, x, p. 66.
1902. *Cochlostoma* (*Auritus*) *patulum* (Drap.): KOBELT, *Das Tierreich*, xvi, Cyclophoridae, p. 524.

Found in September, 1918, by H. C. Huggins among moss on a wall at Kearsney, near Dover, Kent. (*Journ. of Conch.*, xvi, 1919, p. 51.)

## Fam.: PHYSIDÆ.

Genus: 1. **PHYSA**, Draparnaud.1. **Physa acuta**, Draparnaud.Etym.:—Lat. *acutus*, pointed.

1805. *Physa acuta*: DRAPARNAUD, *Hist. Moll. France*, p. 55, pl. iii, f. 10 & 11.
1807. *Physa fluviatilis*, nobis: FÉRUSSAC, *Essai méthod. Conchyl.*, p. 59.
- ?1823. *Bulla rivalis*: [BROWN], *Ency. Brit.*, ed. 6, vi, p. 433.
1827. *Physa rivalis*: BROWN, *Illust. Conch. Brit.*, ed. 1, pl. xli, f. 58 & 59. [Non Turton; nec Maton & Rackett.]
1837. *Bulinus (Bulinus) acutus* (Drp.) B.: BECK, *Index Moll.*, p. 117.
1840. } *Physa acuta*, Drap.: GRAY, in Turton's *Manual*, new ed.,  
Apr. } p. 16.
- Post }  
Sept. } *Physa acuta*: BROWN, *Illust. Conch. Brit.*, ed. 2, p. 30,  
1840. } pl. xiv, f. 58 & 59.
1845. *Physa acuta*, J. Sby. MS.: BROWN, *Illust. L. & F.-W. Conch. Brit.*, p. 16, pl. iii, f. 9 & 10.
1852. *Physa acuta*, Draparnaud: FORBES & HANLEY, *Brit. Moll.*, iv, p. 146.
1856. *Physa (Bulinus) acuta*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 452, pl. xxxii, f. 14–23, & xxxiii, f. 1–10.
1857. *Physa acuta*, Drap.: GRAY, in Turton's *Manual*, new ed., p. 227.
1862. *Physa acuta*, Drap.: JEFFREYS, *Brit. Conch.*, i, p. 100.

[GERMAIN (*Moll. France*, ii, p. 248) cites as synonyms:—*Physa gibbosa*, Moquin-Tandon; *P. Saint-Simoni*, Fagot; *P. castanea*, Moq.-Tand.; *P. gallica*, Bourg.; *P. Salteti*, Saint-Simon; *P. mamoi*, Benoit; *P. minutissima*, Massot; *P. Massoti*, Bourg.; and *P. dilucida*, Letourneux.

WESTERLUND (*Fauna Paläarct. Region*, v, p. 56) adds *P. subopaca*, Lamk., which Germain considers distinct.]

First mentioned as occurring in lily tanks at the Royal Botanic Gardens, Kew, by A. Choules in 1860. Choules adds that he had collected the shell twenty years previously in the vicinity of the metropolis when gathering plants for Kew, and this may account for its presence in those gardens. (*Zoologist*, xviii, 1860, p. 7278. Determined by Jeffreys, *Brit. Conch.*, i, p. 100. Cf. also A. J. Jenkins, *Journ. of Conch.*, vi, 1890, p. 270, who records its further occurrence in the Botanic Gardens, Regent's Park, London, and at Aberdeen.)

2. *Physa gyrina*, Say.

Etym. :—Gr. γυρίνος, Lat. *gyrinus*, a tadpole.

1821. *Physa gyrina* : SAY, *Journ. Acad. Nat. Sci. Philad.*, ii, p. 171.  
 1834. *Physa elliptica* : LEA, *Trans. Amer. Phil. Soc.*, N.S. v, p. 115, pl. xix, f. 83.  
 1840. *Physa gyrina*, Say : HALDEMAN, *Monog. Freshw. Univ. Moll. U.S.*, pt. 1, Physadæ, p. 32, pl. iv, [by err. "iii" in text], f. 1-6.  
 1841. *Physa Hildrethiana* : LEA, *Proc. Amer. Phil. Soc.*, ii, p. 32. (Also *Trans. Amer. Phil. Soc.*, ix, 1844, p. 7.)

Found by P. W. Richards in 1918, in a pond to the west of Cardiff. (J. Davy Dean, *Journ. of Conch.*, xvi, 1920, p. 127.)

## Fam. : PUPILLIDÆ.

(Sub-fam. : GASTROCOPTINÆ.)

Genus : 1. **CHONDRINA**, Reichenbach.

Etym. :—Lat. dimin. of generic name *Chondrus*, which is derived from the Gr. χόνδρος, a grain of corn.

Type :—*Bulimus avenaceus*, Bruguière.  
 (*Bulimus*, *Pupa*, *Helix*, vett. auctt.)

1816. *Chondrus* [pars] : CUVIER, *Règne Anim.*, ii, p. 408.  
 1820. *Torquilla* [pars] : STUDER, *Naturw. Anz. Allg. Schweiz. Gesell.*, iii, p. 89. (In reprint, "Syst. Verzeichn.," p. 19.)  
 1821. *Cochlodonta*, subg. 13 of *Helix* [pars] : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 62 (June ed., p. 58).  
 \*1828. *Chondrina* : REICHENBACH, *Allg. Taschenbiblioth. Naturw.*, 5. Thl., i, p. 93; ii, 1836, p. 152.  
 1855. *Modicella*, subg. of *Pupa* [pars] : H. & A. ADAMS, *Genera Moll.*, ii, p. 169.  
 \*1868. *Alloglossa* : LINDSTRÖM, *Gotlds Nutid. Moll.*, p. 18.

Section : **Solatopupa**, Pilsbry.

Etym. :—Lat. *solatus*, sunburnt + *Pupa*, a genus of Mollusca.

1917. *Solatopupa*, section of *Chondrina* : PILSBRY, *Man. Conch.*, Ser. II, vol. xxiv, p. 234.

1. *Chondrina* (*Solatopupa*) *similis* (Bruguière).

Etym. :—Lat. *similis*, resembling.

1792. *Bulimus similis*, Nob. : BRUGUIÈRE, *Ency. méthod.*, Vers, i, p. 355.

1801. *Pupa cinerea* : DRAPARNAUD, *Tabl. Moll. France*, p. 61.  
 1805. *Pupa cinerea* : DRAPARNAUD, *Hist. Moll. France*, p. 65,  
 pl. iii, f. 53 & 54.  
 1817. *Turbo quiquedentatus*, BORN : DILLWYN, *Cat. Shells*, ii,  
 p. 876. [Non Born.]  
 1821. *Helix (Cochlodonta) cinerea*, Draparn. : FÉRUSAC, *Tabl.*  
*syst. Limaçons*, Jan. ed., p. 64 (June ed.,  
 p. 60).  
 1826. *Clausilia cinerea*, Drap. : RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 85.  
 1826. *Jamnia quinquelamellata* (N) : RISSO, *l. c.*, p. 91.  
 1830. *Helix (Cochlichondra) cinerea*, Fér. : JAN, *Conspéct.*  
*method. Test.*, p. 5.  
 1832. *Chondrus cinereus*, Drap. : CRISTOFORI & JAN, *Cat. Mus.*,  
 IIa (1), p. 5.  
 1832. *Chondrus variegellus*, Ziegl. : CRISTOFORI & JAN, *l. c.*  
 1837. *Pupa (Torquilla) cinerea*, Drp. : BECK, *Index Moll.*, p. 87.  
 1848. *Pupa quinquedentata*, BORN : PFEIFFER, *Mon. Helic. viv.*,  
 ii, p. 345. [Non Born.]  
 1848. *Pupa variegella*, Ziegl. Mus. : PFEIFFER, *l. c.*  
 1850. *Pupa similis* : DUPUY, *Hist. Moll. France*, p. 401, pl. xx,  
 f. 6.  
 1856. *Pupa (Torquilla) quinquedentata*, BORN : MOQUIN-  
 TANDON, *Hist. Moll. France*, ii, p. 352, pl. xxv,  
 f. 15-22. [Non Born.]  
 1887. *Pupa (Torquilla) similis*, Brug. : WESTERLUND, *Fauna*  
*Palæarct. Region*, iii, p. 94.  
 1918. *Chondrina (Solatopupa) similis* (Brug.) : PILSBRY, *Man.*  
*Conch.*, Ser. II, vol. xxv, p. 57, pl. iv, f. 1-4.

First mentioned as British by J. E. Gray in 1821 (*Lond. Med. Repos.*, xv, p. 239) through an error (Gray, in Turton's *Manual*, new ed., 1840, p. 13). Specimens were found at Church and near Stoneyhurst (Lancashire) in 1878 and 1889. Probably introduced with pheasants' food (R. Wigglesworth, *Science Gossip*, xxv, 1889, p. 281; *Cf. Journ. of Conch.*, xii, 1907, pp. 79 & 154; & *Proc. Malac. Soc. Lond.*, xi, 1914, p. 154).

(Sub-fam. : CHONDRULINÆ.)

Genus : **2. CHONDRULA**, Beck.

Etym. :—Lat. dimin. of genus name *Chondrus*, which is derived from the Gr. *χόνδρος*, a grain of corn.

Type :—*Helix tridens*, Müller. (Selected by Herrmannsen.)

1816. *Chondrus* [pars] : CUVIER, *Règne Anim.*, ii, p. 408.  
 1826. *Jamnia* (Leach mt.) [pars] : RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 88.

1837. *Chondrula*, sub-gen. 8 of *Pupa* : BECK, *Index Moll.*, p. 87.  
 1837. *Eucore*, Ag. (Msc.), sub-gen. 1 of *Pupa* : CHARPENTIER,  
*Neue Denkschr. Allg. Schweiz. Gesell.*, i  
 [no. 2], p. 15.  
 1837. *Gonodon* : HELD, *Isis*, xxx, hft. 12, col. 918.  
 1850. *Odontalus*, Parr. : PARREYSS, *Ber. & Mittheil. Freund.*  
*Naturw. Wien*, vi, p. 99.

### 1. *Chondrula quadridens* (Müller).

Etym. :—Lat. *quadridens*, having four teeth.

1774. *Helix quadridens* : MÜLLER, *Verm. Hist.*, ii, p. 107.  
 1791. *Turbo quadridens*, Müll. : GMELIN, *Linn. Syst. Nat.*,  
 ed. 13, i, pt. 6, p. 3610.  
 1792. *Bulimus quadridens*, Nob. : BRUGUIÈRE, *Ency. méthod.*,  
 Vers, i, p. 351.  
 1801. *Pupa 4-dens* : DRAPARNAUD, *Tabl. Moll. France*, p. 60.  
 1805. *Pupa 4-dens* : DRAPARNAUD, *Hist. Moll. France*, p. 67,  
 pl. iv, f. 3.  
 1816. *Chondrus quadridens*, Drap. : CUVIER, *Règne Anim.*, ii,  
 p. 408.  
 1826. *Jaminia heterostropha* (N) : RISSO, *Hist. Nat. Europ.*  
*mérid.*, iv, p. 91 [pl. iii], f. 31.  
 1826. *Jaminia niso* (N) : RISSO, *t. c.*, p. 92 [*Teste Caziot*].  
 1837. *Pupa* (*Chondrula*) *quadridens* (O. Müll.), Drp. : BECK,  
*Index Moll.*, p. 87.  
 1837. *Pupa* (*Eucore*) *quadridens*, Müll. : CHARPENTIER, *Neue*  
*Denkschr. Allg. Schweiz. Gesell.*, i [no. 2], p. 15.  
 1837. *Gonodon quadridens*, Drap. : HELD, *Isis*, xxx, hft. 12,  
 col. 918.  
 1840. *Eucore 4-dens*, Agassiz : HARTMANN, *Erd- & Süssw.-*  
*Gasteropoden*, p. 150, pl. xlix, f. 1-3.  
 1841. *Torquilla quadridens*, Drap. : VILLA, *Disp. Conch.*, p. 24.  
 1850. *Bulimus* (*Chondrus*) *quadridens*, Müll. : ALBERS, *Heliceen*,  
 p. 185.  
 1855. *Chondrus quadridens*, Müll. : H. & A. ADAMS, *Genera*  
*Moll.*, ii, p. 164.  
 1856. *Bulimus* (*Gonodon*) *quadridens*, Müll. : MOQUIN-TANDON,  
*Hist. Moll. France*, ii, p. 299, pl. xxii, f. 1-6.  
 1860. *Buliminus* (*Chondrula*) *quadridens*, Müll. : MARTENS, in  
 Albers, *Heliceen*, ed. 2, p. 237.  
 1887. *Buliminus* (*Chondrulus*) *quadridens*, Müll. : WESTER-  
 LUND, *Fauna Paläarct. Region*, iii, p. 51.  
 1904. *Chondrula* (s.s.) *quadridens*, Müll. : KOBELT, in ROSS-  
 mässler, *Icon.*, N.F. xi, 1914, p. 216.

Found in 1914 at Whitlingham Wood, near Norwich,  
 by Lindley H. Jones, at which locality they were  
 probably introduced with pheasants' food (*Proc.*  
*Malac. Soc. Lond.*, xi, 1914, p. 154).



(Sub-fam. : PLEURODISCINÆ.)

Genus : 3. **PLEURODISCUS**, Wenz.Etym. :—Gr. *πλευρά* + *δίσκος*, a ribbed disc.Type :—*Helix Balmei*, Potiez & Michaud.(*Helix*, *Pyramidula*, *Patula*, vett. auctt.)1919. *Pleurodiscus*, subg. of *Goniodiscus* : WENZ, *Nachrbl. Deutsch. Malak. Gesell.*, li, p. 78.1. **Pleurodiscus flavidus** (Rossmässler).Etym. :—Lat. *flavidus*, yellowish.1836. *Helix striolata*, Pfeif. : PHILIPPI, *Enum. Moll. Siciliae*, i, p. 129. [*Non* C. Pfeiffer, 1828.]1838. *Helix Balmei*, nob. : POTIEZ & MICHAUD, *Gall. Douai*, i, p. 120. [*Non Helix* (*Circinaria*) *Balmei*, Michd!, Beck, 1837.]1839, } *Helix flavida*, Zgl. [MS.] : ROSSMÄSSLER, *Icon.*, ii,  
Sept. } hft. 3–4, p. 13, pl. xlvii, f. 610.1839, } *Helix Erdelii*, nob. : ROTH, *Moll. Itin. Schuberti*, p. 16,  
Dec. } pl. i, f. 4, 5 & 20.\*1843. *Helix Teresæ* : BENOIT, *La Farfalleta*, *Nouv. Ser.*, Ann. i, vol. i, p. 179. [Also in reprint, p. 9.]1855. *Discus Erdelii*, Roth : H. & A. ADAMS, *Genera Moll.*, ii, p. 117.1856. *Helix* (*Hyalina*) *Balmei*, Pot. & Mich. : PFEIFFER, *Malak. Blätt.*, ii, p. 124.1878. *Patula* (*Patulastra*) *flavida*, Ziegl. : PFEIFFER, *Nomencl. Helic. vivent.*, ed. Clessin, p. 90.1889. *Helix* (*Patula*) *balmei*, Pot. & Mich. : WESTERLUND, *Fauna Paläarct. Region*, ii, p. 12.1893. *Pyramidula* (*Gonyodiscus*) *balmei*, P. & M. : PILSBRY, *Manual Conch.*, Ser. II, vol. ix, p. 47.Found in the glass-houses at Glasnevin, near Dublin.  
(Stelfox, *Proc. R. Irish Acad.*, xxix B, 1911, p. 133.)

Fam. : ENDODONTIDÆ.

Genus : 1. **HELICODISCUS**, Morse.Etym. :—Gr. *ἑλική* + *δίσκος*, a spiral disc.Type :—*Helix lineata*, Say = *Planorbis parallelus*, Say.(*Helix*, *Zonites*, *Pyramidula*, vett. auctt.)1864. *Helicodiscus* : MORSE, *Journ. Portland Soc.*, i, pp. 5 & 25.1. **Helicodiscus parallelus**, Say.Etym. :—Gr. *παράλληλος*, parallel.1817. *Helix lineata* : SAY, *Journ. Acad. Nat. Sci. Philad.*, i, p. 18. Also *ib.*, ii, 1824, p. 273. [*Non Olivi*, 1792.]

1821. *Planorbis parallelus*: SAY, *Journ. Acad. Nat. Sci. Philad.*, ii, p. 161.
1821. *Helix (Helicella) lineata*, Say: FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 44 (June ed., p. 40).
1837. *Helix (Eryromphalus) lineata*, Say!: BECK, *Index Moll.*, p. 8.
1850. *Helix (Gastrodonta) lineata*, Say: ALBERS, *Heliceen*, p. 88.
1855. *Sagda (Gastrodonta) lineata*, Say: H. & A. ADAMS, *Genera Moll.*, ii, p. 113.
1860. *Hyalina (Gastrodonta) lineata*, Say: MARTENS, in Albers, *Heliceen*, ed. 2, p. 74.
1864. *Helicodiscus lineata* [sic], Say: MORSE, *Journ. Portland Soc.*, i, pp. 5 & 25, figs. & pl. ii, f. 3; vii, f. 63.
1865. *Discus lineata* [sic], Say: MÖRCH, *Journ. de Conchyl.*, xiii, p. 382, in synon.
1869. *Hyalina (?) lineata*, Say: BINNEY & BLAND, *Smiths. Miscell. Coll.*, viii, art. 3, p. 52, figs.
1886. *Zonites (Hyalinia) lineata*, Say: TRYON, *Manual*, Ser. II, vol. ii, p. 200, pl. lx, f. 43-47.
1894. *Pyramidula (Helicodiscus) lineata*, Say: PILSBRY, *Manual*, Ser. II, vol. ix, p. 52.
1906. *Helicodiscus parallelus* (Say): PILSBRY & FERRIS, *Proc. Acad. Nat. Sci. Philad.*, 1906, p. 156, pl. viii, f. 7-10.

Found in hot-houses at University College, Cork, by R. A. Phillips. (Stelfox, *Proc. R. Irish Acad.*, xxix B, 1911, p. 133.)

Fam.: ZONITIDÆ.

(Sub-fam.: ARIOPHANTINÆ.)

Genus: 1. ZONITOIDES, Lehmann.

1. *Zonitoides minusculus* (Binney).

Etym.:—Lat. *minusculus*, rather small.

1840. *Helix minuscula*, Nobis: A. BINNEY, *Boston Journ. Nat. Hist.*, iii, p. 435, pl. xxii, f. 4.
1841. *Helix Lavalleana*, d'Orb.: ORBIGNY, in Sagra, *Hist. Cuba*, Moll. i, p. 161, pl. viii, f. 20-23 [errore 16-19 = *H. mauriniana*].

[Pfeiffer (*Mon. Helic.*, i, p. 87) cites "*Helix mauriniana*, Orb. cub. i, p. 162, t. 8, f. 20-23" as a synonym of his *H. saxicola* (*Arch. Naturg.*, Jahrg. vi, bd. i, May, 1840, p. 251). Since in subsequent volumes Pfeiffer continues to treat *H. minuscula* as a separate species, it is obvious that in the above citation he has merely copied the erroneous reference to the figures given

- by Orbigny and did not mean that his *H. saxicola* was identical with Orbigny's *H. Lavalleana*, an admitted synonym of Binney's *minusculus*, as assumed by Dall (*Proc. U.S. Nat. Mus.*, viii, 1885, p. 271).]
1849. *Helix apex*: C. B. ADAMS, *Contrib. Conch.*, i, p. 36.  
[Non Férussac.]
1850. *Helix (Hyalina) minuscula*, Binney: ALBERS, *Heliceen*, p. 67.
1851. *Helix minutalis*: MORELET, *Test. nov. Cuba*, ii, p. 7.
1855. *Helicella minuscula*, Binney: H. & A. ADAMS, *Genera Moll.*, ii, p. 118.
1860. *Microphysa apex*, Ad.: MARTENS, in Albers, *Heliceen*, ed. 2, p. 82.
1860. *Microphysa minuscula*, Binn.: MARTENS, *l. c.*
1864. *Pseudohyalina minuscula*: MORSE, *Journ. Portland Soc. Nat. Hist.*, i, pp. 5 & 16, pl. vii, f. 35.
1869. *Hyalina minuscula*, Binney: BINNEY & BLAND, *Smiths. Miscell. Coll.*, viii, art. 3, p. 37, figs.
1872. *Zonites minusculus*, A. Binney: FISCHER & CROSSE, *Miss. Scient. Mexique, Recher. Zool.*, Pt. VII, vol. i, p. 175.
1885. *Zonites (Hyalina) minusculus*, Binney: DALL, *Proc. U.S. Nat. Mus.*, viii, p. 270.
1886. *Zonites (Pseudohyalina) minusculus*, Say: TRYON, *Manual*, Ser. II, vol. ii, p. 202, pl. i, f. 58-63.
1900. *Zonitoides minusculus*: COCKERELL & PILSBRY, *Nautilus*, xiii, p. 114, in text.

Found in 1883, in Thacker's Orchid House on Blue Bell Hill, Nottingham. ("Victoria County Histories": *Nottinghamshire*, by B. B. Woodward & B. Sturges Dodd, 1906), but exhibited in 1903 (*Proc. Malac. Soc. Lond.*, v, p. 344). Afterwards met with in hot-houses in the Botanic Park, Belfast. (Stelfox, *Proc. R. Irish Acad.*, xxix B, 1911, p. 133.)

Fam.: HELICIDÆ.

(Sub-fam.: HELICINÆ.)

Genus: 1. XEROCLIVIA, Monterosato.

1. *Xeroclivia pyramidata* (Draparnaud).

Etym.:—Lat. *pyramidatus*, pyramidal.

1805. *Helix pyramidata*: DRAPARNAUD, *Hist. Moll. France*, p. 80, pl. v, f. 6.
1821. *Helix (Helicella) pyramidata*, Draparn.: FÉRUSSAC, *Tabl. syst. Linnaçons*, Jan. ed., p. 49 (June ed., p. 45).

1826. *Theba pyramidata*, Drap.: RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 74. [= *subpyramidata*, Caziot. *Teste Caziot.*]
1837. *Theba pyramidata*, Drap.: BECK, *Index Moll.*, p. 11.
1837. *Xerophila pyramidata*, Drap.: HELD, *Isis*, xxx, hft. 12, col. 913.
1838. *Helix (Teba) pyramidata* (Dr.): SCHLÜTER, *Kurz. syst. Verzeichn.*, p. 6.
1855. *Theba (Irus) pyramidata*, Drap.: H. & A. ADAMS, *Genera Moll.*, ii, p. 216.
1856. *Helix (Theba) pyramidata*, Drap.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 268, pl. xx, f. 1-5.
1860. *Helix (Turricula) pyramidata*, Drap.: MARTENS, in Albers, *Heliceen*, ed. 2, p. 116.
1865. *Trochula pyramidata*, Drp.: MÖRCH, *Journ. de Conchyl.*, xiii, p. 386.
1879. *Helix (Xerophila) pyramidata*, Drp.: PFEIFFER, *Nomencl. Helic. vivent.*, ed. Clessin, p. 133.
1895. *Helicella (Trochula) pyramidata*, Drp.: PILSBRY, *Manual*, Ser. II, vol. ix, p. 263.
- 1921, } *Helicopsis (Xeroclivia) pyramidata*, Drap.: GUDE &  
Oct. } WOODWARD, *Proc. Malac. Soc.*, xiv, p. 188.
- 1921, } *Jacosta (Xeroclivia) pyramidata*, Drap.: GUDE & WOOD-  
Dec. } WARD, *Ann. & Mag. Nat. Hist.*, Ser. IX,  
vol. viii, p. 625.

[ROSSMÄSSLER (*Icon.*, hft. 5-6, 1837, p. 25) includes the following manuscript names of Ziegler as synonyms:—*agnata*, *littoralis*, *sabulosa* and *spectabilis*, whilst

GERMAIN (*Moll. France*, p. 116) adds to the list:—*Helix tremesia*, Bourg.; *H. subpyramidata*, Caziot; *H. pseudonumidica*, Caziot; and *H. pseudopyramidata*, Caziot.]

Found living near Wakefield, Yorkshire, whither they had been imported in barley siftings. (J. A. Hargreaves & J. Digby Firth, *The Naturalist*, 1918, p. 125.)

Genus: 2. **FRUTICICOLA**, Held.

Sub-gen.: **Capillifera**.

1. **Fruticicola (Capillifera) umbrosa** (Partsch).

Etym.:—Lat. *umbrosus*, shady.

1828. *Helix umbrosa*, Partsch [MS.]: C. PFEIFFER, *Naturg. Deutsch. Moll.*, iii, p. 27, pl. vi, f. 7.

1830. *Helix (Helicella) umbrosa*, Partsch : JAN, *Conspect. method.*, p. 4.
1833. *Helicella umbrosa*, Férussac : FITZINGER, *Beitr. Landesk. Oesterr.*, iii, p. 96. [Not in Férussac.]
1837. *Helix (Badybæna) umbrosa*, Partsch : BECK, *Index Moll.*, p. 20.
1837. *Fruticicola umbrosa*, Partsch : HELD, *Isis*, xxx, hft. 12, col. 914.
1850. *Helix (Fruticicola) umbrosa*, Partsch : ALBERS, *Heliceen*, p. 70.
- 1855, ) *Hygromia umbrosa*, Partsch : H. & A. ADAMS, *Genera*  
June. ) *Moll.*, ii, p. 215.
- 1855, ) *Helix (Hygromia) umbrosa*, Ptsch : PFEIFFER, *Malak.*  
Nov. ) *Blätt.*, ii, p. 128.
1887. *Helix (Helicella) umbrosa*, Partsch : TRYON, *Manual*, Ser. II, vol. iii, p. 176, pl. xxxix, f. 75-78.
1895. *Hygromia (Fruticicola) umbrosa*, Partsch : PILSBRY, *Manual*, Ser. II, vol. ix, p. 275.
1917. *Hygromia (Trichia) umbrosa* (Partsch) : TAYLOR, *Monog. Moll. Brit. Is.* [iv], p. 65, pl. ix.

Found by J. C. Dacie near Margate in September, 1914, and considered by J. W. Taylor to be indigenous (*Journ. of Conch.*, xv, 1916, p. 11; & *Manual*, iv, p. 65). Probably introduced in the young state with food on the farm for poultry, on the other side of the hedge where the specimens were found (*teste* W. J. Wintle, 1924).

The record that this species occurred fossil in the Ightham Fissure (*Proc. Malac. Soc. Lond.*, ii, 1897, pp. 242-43) was an error.

Fam. : ACHATINIDÆ.

(Sub-fam. : STENOGYRINÆ.)

Genus : 1. **SUBULINA**, Beck.

Etym. :—Lat. dimin. *subula*, an awl.

Type :—*Bulimus octonus*, Bruguière.

(*Helix*, *Bulimus*, *Achatina*, vett. auctt.)

1837. *Subulina*, subg. 4 of *Achatina* : BECK, *Index Moll.*, p. 76.
1840. *Macrospira*, Guild. [MS.] subg. of *Achatina* [pars] : SWAINSON, *Treat. Malac.*, p. 335.
1854. *Stenogyra* [pars] : SHUTTLEWORTH, *Mitthl. Naturf. Gesell. Bern*, 1854, p. 45.
1855. *Sira* [pars] : A. W. F. SCHMIDT, *Abhandl. Naturw. Ver. Sachs.*, i, no. 1, pp. 5 & 42.

1. *Subulina octona* (Bruguère).

Etym. :—Lat. *octo*, Gr. ὀκτώ, eight; in allusion to the number of whorls.

1789. *Bulimus octonus*, nob. : BRUGUIÈRE, *Ency. Méthod.*, Vers, i, p. 325.
1807. *Helix octona*, Pult. [MS.] : MATON & RACKETT, *Trans. Linn. Soc.*, viii, p. 211, pl. v, f. 10.
- 1813? *Lymnæa octona* : FLEMING, *Edinb. Ency.*, vii, p. 78. [Non Fleming, 1828.]
1817. *Achatina crotalaria* : SCHUMACHER, *Essai Nouv. Syst. Vers Test.*, p. 202.
1817. *Helix octona*, Linnæus : DILLWYN, *Cat. Shells*, ii, p. 954.
1818. *Achatina octona*, Linn. : FLEMING, *Suppt.* 4-6th ed. *Ency. Brit.*, iii, p. 310.
1821. *Helix (Cochlicopa) octona*, Chemnitz : FÉRUSSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 55 (June ed., p. 51).
1825. *Achatina octona* : GRAY, *Ann. Phil.*, xxv (N.S. ix), p. 414.
1830. *Cionella elongata* : JEFFREYS, *Trans. Linn. Soc.*, xvi, p. 348.
1831. *Achatina octona*, Lam. : TURTON, *Manual*, p. 90, f. 72.
1832. *Columna octona*, Chemn. : CRISTOFORI & JAN, *Cat. Rerum Nat.*, Sect. IIa (1), p. 4.
1837. *Achatina (Subulina) octona* (Ch.) Gray : BECK, *Index Moll.*, p. 77.
1839. *Achatina novenaria* : ANTON, *Verzeichn. Conch.*, p. 44, no. 1601.
1840. *Achatina (Macrospira) octona*, Auct. : SWAINSON, *Treat. Malac.*, p. 335.
1842. *Achatina trochlea*, Pfr. : PFEIFFER, *Symbolæ Hist. Helic.*, ii, p. 59.
1848. *Achatina panamensis*, Mlf., Mus. : PFEIFFER, *Mon. Helic. vivent.*, ii, p. 266.
1850. *Achatina (Subulina) octona*, Chemn. : ALBERS, *Heliceen*, p. 195.
1851. *Subulina octona*, Chemn. : POEY, *Memor.*, i, p. 396.
1854. *Stenogyra (Subulina) octona* (Ch.) : SHUTTLEWORTH, *Mitthl. Naturf. Gesell. Bern*, 1854, p. 49.
1855. *Sira octona* : A. W. F. SCHMIDT, *Abhandl. Naturw. Ver. Sachs.*, i, no. 1, p. 5.
1860. *Stenogyra (Subulina) octona*, L. : MARTENS, in Albers, *Heliceen*, ed. 2, p. 267. [Non Linné.]
1866. *Rumina (Subulina) octona*, Chem. : H. ADAMS, *Proc. Zool. Soc. Lond.*, 1866, p. 441.
1872. *Subulina crotalaria* [sic], Schumacher : MÖRCH, *Journ. de Conchyl.*, xx, p. 337.
1879. *Subulina Guayaquilensis*, n. sp. : MILLER, *Malak. Blätt.*, N.F. i, p. 126, pl. xiii, f. 5.



1880. *Achatina mamillata*, sp. nov. : CRAVEN, *Proc. Zool. Soc. Lond.*, 1880, p. 215, pl. xxii, f. 8.  
 1881. *Subulina mamillata*, Craven : CROSSE, *Journ. de Conchyl.*, xxix, p. 201.  
 1882. *Subulina trochlea*, Pfr. : STREBEL, *Beitr. Mexikan. Conch.*, v, p. 115, pl. vii, f. 16, xvii, f. 32, xviii, f. 1, 12-16 & 18-21.  
 1883. *Stenogyra octona*, Chemnitz : MAZE, *Journ. de Conchyl.*, xxxi, p. 5.

Found in the Royal Botanic Gardens, Kew, where it was first seen in 1884 in the propagating pits. (*Bull. Miscell. Inform. R. Bot. Gardens, Kew, Addit. Ser.*, v, 1906, p. 12.)

Genus : 2. **LEPTINARIA**, Beck.

Etym. :—Gr. λεπτός, peeled, hence slender.

Type :—*Achatina unilamellata* (Fér. MS.) Beck.

1837. *Leptinaria*, subg. 7 of *Achatina* : BECK, *Index Moll.*, p. 79.  
 1850. *Nothus* : ALBERS, *Heliceen*, p. 168. [*Non* Olivier, 1811 (Coleopt.), *nec* Billberg, 1820 (Lepid.)]  
 1882. *Lamellaris* : STREBEL, *Beitr. Mexikan. Conch.*, v, p. 109.

1. **Leptinaria urichi** (Smith).

Etym. :—Named in honour of Mr. Urich, who collected in Trinidad.

1896. *Subulina (Nothus) Urichi* : SMITH, *Journ. of Conch.*, viii, p. 235, pl. viii, f. 2.  
 1907. *Leptinaria urichi*, Smith : PILSBRY, *Man. Conch.*, Ser. II, vol. xviii, p. 301, pl. xl, f. 13.

Specimens were received by us in December, 1907, from J. R. le B. Tomlin, who had them from the Royal Botanic Gardens, Kew. They were exhibited by Mr. Tomlin in 1915 (*Journ. of Conch.*, xv, p. 21).

Genus : 3. **OPEAS**, Albers.

Etym. :—Gr. ὄπεις, an awl.

Type :—*Bulimus subula*, Pfeiffer.  
 (*Helix, Bulimus*, vett. auctt.)

1850. *Opeas*, subg. 38 of *Bulimus* : ALBERS, *Heliceen*, p. 175.

1. *Opeas clavulinum* (Potiez & Michaud).

Etym. :—Lat. *clavus*, a nail.

1838. *Bulimus clavulinus*, nob. : POTIEZ & MICHAUD, *Gall. Moll. Douai*, i, p. 136, pl. xiv, f. 9 & 10.  
 1898. *Opeas clavulinum*, Pot. & Mich. : MARTENS, *Mittl. Zool. Samml. Mus. f. Naturk. Berlin*, i, hft. 1, p. 23.  
 1903. *Opeas clavulus* (Fér.) : B. B. WOODWARD, *Journ. of Conch.*, x, p. 354. [Non Férussac.]

Found in 1883 in Thacker's Orchid House, Blue Bell Hill, Nottingham. ("Victoria County Histories" : *Nottinghamshire*, by B. B. Woodward & B. Sturges Dodd, 1906. Recorded in error as *O. clavulus*, Fér., and exhibited under that name in 1903 (*Proc. Malac. Soc. Lond.*, v, p. 344).)

2. *Opeas pumilus* (Pfeiffer).

Etym. :—Lat. *pumilus*, diminutive.

1821. *Helix* (*Cochlicella*) *clavulus* : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 56 (June ed., p. 52). [Nom. nud.]  
 1822. *Helix Goodallii* : MILLER, *Ann. Phil.*, N.S. iii, p. 381. [Non Férussac.]  
 1831. *Bulimus clavulus* : TURTON, *Manual*, p. 79, pl. vi, f. 61. [Non Lamarck.]  
 1840, } *Bulimus Goodallii*, Miller : GRAY, *Turton's Manual*,  
 Apr. } new ed., p. 6, pl. vi, f. 61.  
 1840, } *Bulimus pumilus* : PFEIFFER, *Arch. f. Naturg.*, vi, bd. i,  
 May. } p. 252. [Cf. *Malak. Blätt.*, v, 1858, p. 184.]  
 1850. *Bulimus* (*Opeas*) *Goodallii*, Mill. : ALBERS, *Heliceen*, p. 175.  
 1854. *Stenogyra ascendens*, Poey : POEY, *Mem. Hist. Nat. Cuba*, i, p. 422. [In *op. cit.*, ii, 1856, p. 8. Poey makes it a synonym of *S. Goodallii*, Miller.]  
 1856, } *Bulimus* (*Opeas*) *assurgens*, Pfr. : PFEIFFER, *Malak.*  
 Dec. } *Blätt.*, ii, p. 156.  
 1856, } *Bulimus compressilabris* : BENSON, *Ann. & Mag. Nat.*  
 Dec. } *Hist.*, Ser. II, vol. xviii, p. 434.  
 1858. *Stenogyra Goodallii* : PFEIFFER, *Malak. Blätt.*, v, p. 184.  
 1860. *Stenogyra* (*Opeas*) *Goodallii*, Miller : MARTENS, in Albers, *Heliceen*, ed. 2, p. 265.  
 1878. *Stenogyra goodallii*, Miller : WOLLASTON, *Test. Atlant.*, p. 510.  
 1879. *Stenigyra* (*Opeas*) *aciculæforme*, n. sp. : MILLER, *Malak. Blätt.*, N.F. i, p. 125, pl. xiii, f. 4.

1890. *Opeas ascendens*, Poey : CROSSE, *Journ. de Conchyl.*, Sér. III, tom. xxx, p. 246.  
 1895. *Opeas Goodallii*, Miller : SMITH, *Proc. Malac. Soc. Lond.*, i, p. 308.  
 1910. *Opeas pumilum* (Pfr.) : PILSBRY, *Nautilus*, xxiv, p. 31.  
 Described under the name of *Helix Goodallii* by J. S. Miller (*Ann. Phil.*, N.S. iii, May, 1822, p. 31) from specimens in hot-houses near Bristol.  
 Said to have been previously discovered by a Mr. Drummond (*teste* J. E. Daniels, *Journ. of Conch.*, i, p. 246).

Genus : 4. **RUMINA**, Risso.

Etym. :—Named after the Roman goddess Rumina.

Type :—*Helix decollata*, Linné.

(*Helix*, *Bulimus*, *Stenogyra*, vett. auctt.)

1826. *Rumina* : RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 79.  
 1826. *Orbitina* : RISSO, *t. c.*, p. 82. [Young specimen.]  
 1830. *Cochliclona*, Ziegl., subg. 9 of *Helix* : JAN, *Conspect. Method. Test.*, p. 5.  
 1837. *Obeliscus*, subg. 14 of *Bulimus* : BECK, *Index Moll.*, p. 61.  
 1838. *Cylindrina* : SCHLÜTER, *Kurz. Syst. Verzeichn. Conch.*, p. 7.  
 1854. *Stenogyra* [pars] : SHUTTLEWORTH, *Mithl. Naturf. Gesell. Bern*, 1854, p. 45.  
 1855. *Sira* : A. W. F. SCHMIDT, *Abhandl. Naturw. Ver. f. Sachsen*, i, no. 1, p. 42.

1. **Rumina decollata** (Linné).

Etym. :—Lat. *decollatus*, decapitated.

1758. *Helix decollata* : LINNÆUS, *Syst. Nat.*, ed. 10, p. 773, no. 608.  
 1767. *Helix decollata* : LINNÆUS, *o. c.*, ed. 12, p. 1247, no. 695.  
 1774. *Helix decollata* : MÜLLER, *Verm. Hist.*, ii, p. 114.  
 1789. *Bulimus decollatus* : BRUGUIÈRE, *Ency. Méthod.*, Vers, i, p. 326.  
 1791. *Helix decollata* : GMELIN, in *Linn. Syst. Nat.*, ed. 13, i, pt. 6, p. 3651, no: 115.  
 1801. *Bulimus decollatus* : DRAPARNAUD, *Tabl. Moll. France*, p. 66.  
 1805. *Bulimus decollatus* : DRAPARNAUD, *Hist. Moll. France*, p. 76, pl. iv, f. 27 & 28.  
 1817. *Helix decollata*, Linn. : DILLWYN, *Cat. Shells*, ii, p. 947.  
 1821, { *Helix* (*Cochlicella*) *decollata*, Linné : FÉRUSAC, *Tabl. syst. Limaçons*, Jan. ed., p. 56 (June ed., p. 52).  
 Jan. {  
 1821. *Bulimus decollatus* : HARTMANN, *Neue Alpina*, i, p. 223.

1826. *Rumina decollata* (L.): RISSO, *Hist. Nat. Europ. mérid.*, iv, p. 79.
1826. *Orbitina incomparabilis* (N): RISSO, *t. c.*, p. 82, f. 23.
1826. *Orbitina truncatella* (N): RISSO, *t. c.*, p. 82, f. 25. [Both these two last are young of *R. decollata*.  
*Teste Caziot.*]
1830. *Helix* (*Cochliclona*) *decollata*, Fér.: JAN, *Conspect. method. Test.*, p. 5.
1831. *Bulimus decollatus*, Drap.: TURTON, *Manual*, p. 77, f. 60.
1837. *Bulimus* (*Obeliscus*) *decollatus* (L.), Brug.: BECK, *Index Moll.*, p. 61.
1838. *Cylindrina decollata*, m.: SCHLÜTER, *Kurz. Verzeichn. Conch.*, p. 7.
1840. *Bulimus decollatus*: GRAY, in Turton's *Manual*, new ed., p. 184, pl. vi, f. 60.
1852. *Bulimus decollatus*, Linnæus: FORBES & HANLEY, *Brit. Moll.*, iv, p. 93.
1854. *Stenogyra* (*Rumina*) *decollata*: SHUTTLEWORTH, *Mitthl. Naturf. Gesell. Bern*, 1854, p. 45.
1855. *Sira decollata*: A. W. F. SCHMIDT, *Abhandl. Naturw. Ver. f. Sachs.*, i, no. 1, p. 42.
1856. *Bulimus* (*Rumina*) *decollatus*, Linn.: MOQUIN-TANDON, *Hist. Moll. France*, ii, p. 311, pl. xxii, f. 35-40.
1857. *Bulimus decollatus*: GRAY, in Turton's *Manual*, new ed., p. 319, pl. vi, f. 60.
1862. *Bulimus decollatus*: JEFFREYS, *Brit. Conch.*, i, p. 240.

Noted by Turton (*Zool. Journ.*, ii, April 1826, p. 565) as occurring in the greenhouse of H. Studdy at Watton, Devonshire, where it used to breed.

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