

SOME BIVALVE GENERA

TAXODONT HINGE

Taxodont hinge

- with numerous alternating small teeth and sockets in a line on the hinge.

— small triangular ligament pit between two separate rows of teeth.

— shell roughly triangular in outline; no pallial sinus
— *Nuculas* ("nut shells")

— ventral (lower) margin of shell internally crenulate (notched) — *Nucula* s.s.

— ventral margin internally smooth

— external surface smooth — *Nuculoma* [33]

— external ornament divaricate (of zig-zag grooves and ridges) — *Acila* [33]

— shell elongate; pallial sinus present — *Yoldia* [32]

— triangular ligament area, with chevron grooves (this area may truncate or obliterate teeth in the centre of the hinge line);

shell with circular to oval outline;

external surface smooth with fine growth lines (weathered shells may show radiating lines);

valve margins internally fluted;

posterior adductor muscle scar often with a slight flange

— *Glycymeris* [33] (dog cockle)

SOME CRAG BIVALVE & GASTROPOD GENERA

(Number, eg '33', after generic name, refers to Plate no. in 'British Cenozoic Fossils')

(Names differ with editions for some, and some others have different names used!)

(Produced for U3A meeting 4 iii 2013)

GEOSUF FOLK NOTES
(RM13) #41.1

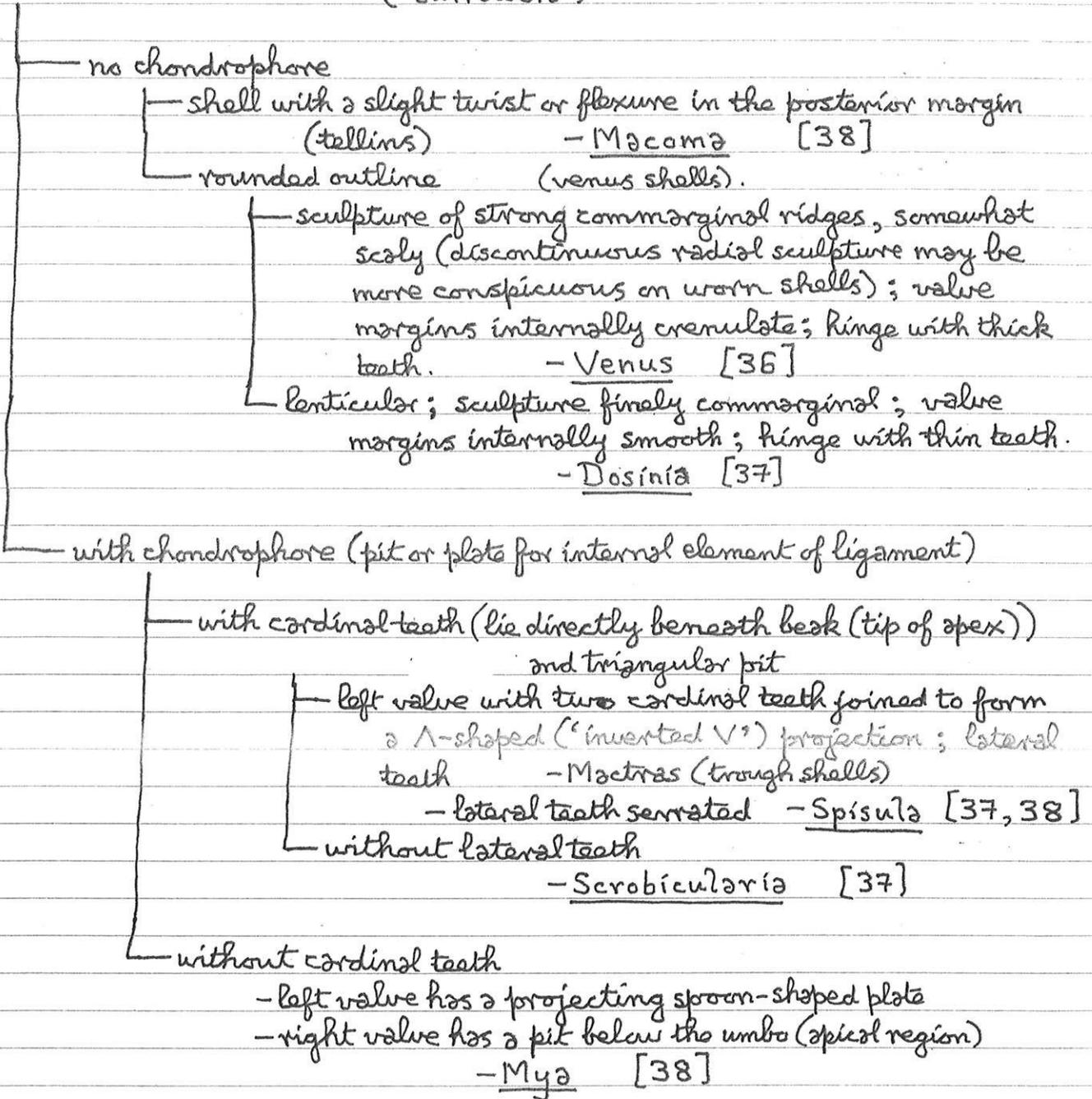
BIVALVES

HINGE WITHOUT TEETH* OR CHONDROPHORE

(*some mussels have small weak (dysodont) teeth).

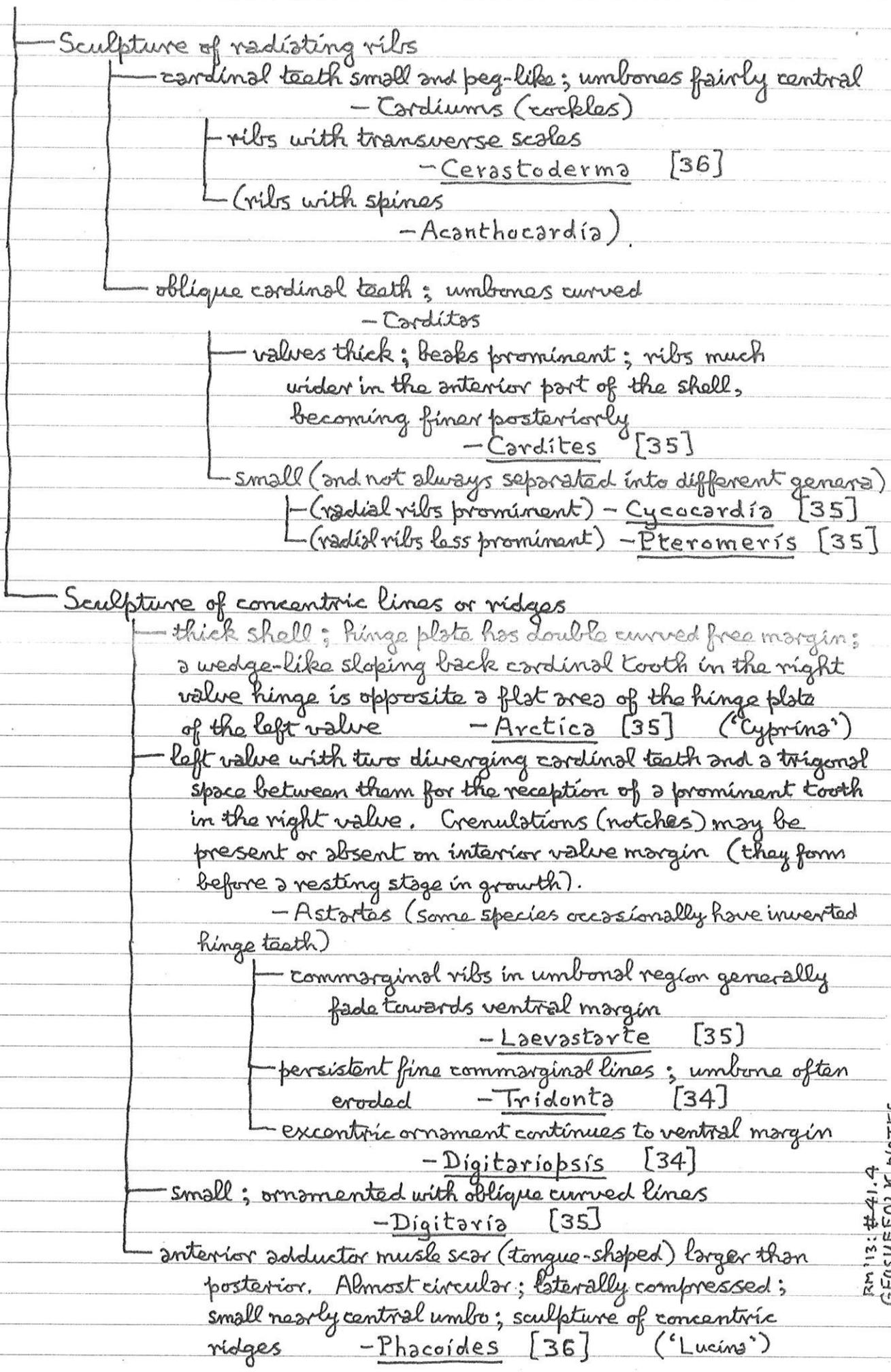
- Oblique elongate, terminating anteriorly in a point (with dysodont teeth) — Mytilus [34] (mussel)
- Hinge line has lateral auricles (ears) (scallops)
 - with radial ribs
 - in whole length of valve — Aequipecten [33]
 - ventral area sharply corrugated — Palliolum [33]
 - smooth surface; thin, almost flat — Pseudamussium [34] (authors vary on these generic assignments).
- No auricles; shell has foliated structure; each valve with one adductor muscle. Shell is cemented by the adolescent part of the left (the larger) valve, which may show the imprint of the surface to which it was attached; the shape and ornament of the 'adult' vary in adjustment to its environmental surroundings. Triangular ligament pit in left valve. Right valve smaller, nearly flat.
— Ostrea [34] (oyster)

BIVALVES
PALLIAL LINE WITH A SINUS
(“burrowers”)



BIVALVES

PALLIAL LINE NOT INDENTED IN A SINUS



SOME GASTROPOD GENERA

Shells more or less limpet-like in form

parallel-sided slit (channel for exhalant current) in front edge of shell, its scar forming a continuous band to the apex. Ornament (sculpture) of radial ribs (costae) and subordinate commarginal ribs

- Emarginula [39] ('slit limpet')

[Sculpture: - consists of variation in the thickness of the shell secreted at different times or different places].

flattish; round; apex central. Spiral septum (shelf-like) inside apex of cavity - Calyptrea [39]

cap-shaped; apex post-centrally placed; no septum inside apex - Copulus [39]

Top-shaped coiled shell (trochids)

conical; spine pointed; base rather flattened. Tremulated (alternate rounded protuberances and notches) spiral threads on whorls; later whorls may be nearly smooth.

- Calliostoma [39]

[Whorl: - one turn of a spiral shell through 360°]

Subspherical, with narrow axial aperture. Labrum (outer lip) extending slightly above inner lip; posterior end of labrum curved round almost at right angles to axis. Both lips denticulate, the teeth (inward projections) extending as ribs (ridges, costae) over the surface of the shell

- Trivia [39]

GASTROPODS

Globose

- last whorl much larger than the spire (which is usually fairly low); holostomatous (have no canal or notch at the anterior end of the aperture)

with umbilicus (a hollow axis)

- Naticas

umbilicus with a median funicle (solid spiral cord within the umbilicus)

- Natica [39]

umbilicus has no funicle ("practically always" !)

- Euspira (Lunatia) [39]

callus (deposit of material) partly or completely filling umbilicus and posterior angle of aperture

- Polinices [39]

without umbilicus

- Littorina [39]

Turreted (tall spired)

spiral ornament - Turritella [39]

rows of crenulations on whorls; aperture with a short anterior channel

- Ptychopotamides [39]

more or less raised circular lip; whorls with ribs

- Epitonium [39]

("Scalaria")

GASTROPODS

Siphonostomatous

- having a notch or canal at the anterior end of the aperture

short anterior canal

canal twisted at an oblique angle forming a notch with the long axis of the aperture; labrum (outer lip) more or less thickened and internally dentate; ornament reticulate, with longitudinal ribs and subordinate spiral ribs - Hinia [39 and 40] ('Nassa')

[The labral profile is the appearance of the labrum as seen when the aperture faces sideways from the observer; it determines the growth lines throughout the shell]

Growth lines

above the shoulder meet the suture (contact line with whorl above) at an obtuse angle ('prosocline') towards the aperture; at base are reversed and form a band (basal or siphonal fasciole) which passes under columellar (inner pillar) callus

- Buccinum [40] (whelk)

growth lines nearly straight. Spire blunt

- Liomesus [40]

anterior canal short to medium

- outer lip thickened with ridges on inside (stable period) or sharp (growth period); siphonal fasciole present.

- Nucella [40 and 41]

anterior canal medium to long

- anterior canal inflected (bent) backwards; outer lip simple; rather weak siphonal fasciole; growth lines become prosocline on shoulder of last whorl; apex of shell formed by protoconch (larval shell) more or less demarcated from rest of shell

- Neptunea [40]

[- the protoconch is liable to mechanical injury and solvent action; in its absence it is not always easy to distinguish Neptunea from some other shells]

anterior canal long

ornament of spiral threads crossed by well-defined axial ribs (costae) which may become obsolete on the last whorl; labrum (outer lip) thickened, internally lirata (fine linear elevations); fairly solid siphonal fasciole

- Searlesia [40]

GASTROPODS

