SCOLIODON: -

- External characters,
- Digestive system,
- Respiratory system,
- Blood Vascular System and
- Nervous System.

Systematic Position:

Phylum: Chordata

Subphylum: Gnathostomata

Superclass: Pisces

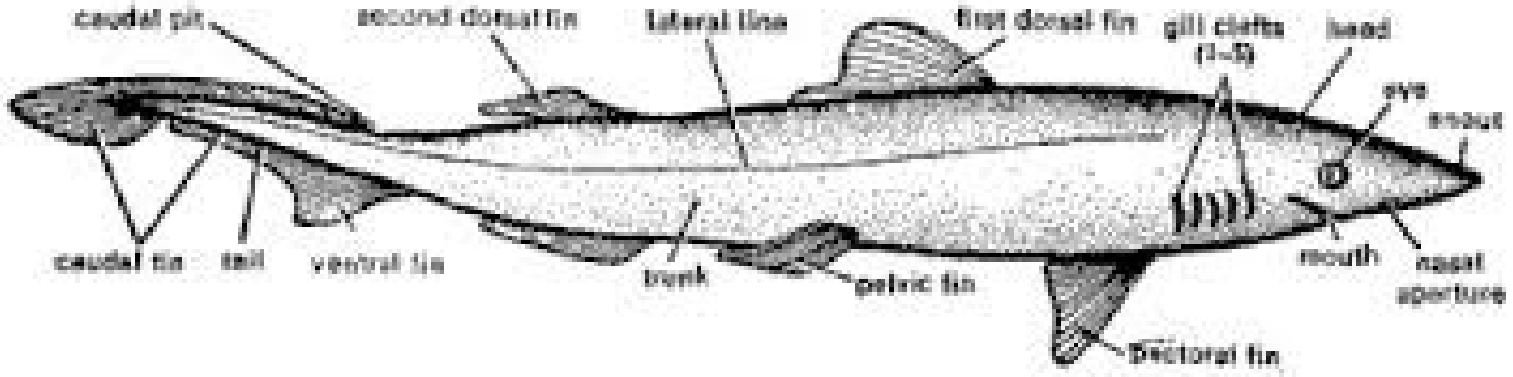
Class: Chodrichthyes

Order: Squaliformes

Family: Carcarinidae

Genus: *Scoliodon*

Species: *sorrakowah*


caudal pit
second dorsal fin
lateral line
first dorsal fin
gill clefts (1–5)
head
eye
snout
caudal fin
tail
ventral fin
trunk
pelvic fin
mouth
nasal aperture
pectoral fin

External Characters:

Widely distributed

Indian dogfish

Marine, feeding crabs, lobester, worms and fishes

Fertilization internal , development direct

Shape, Size and Colour:

Long, laterally compressed, tapering at both ends,

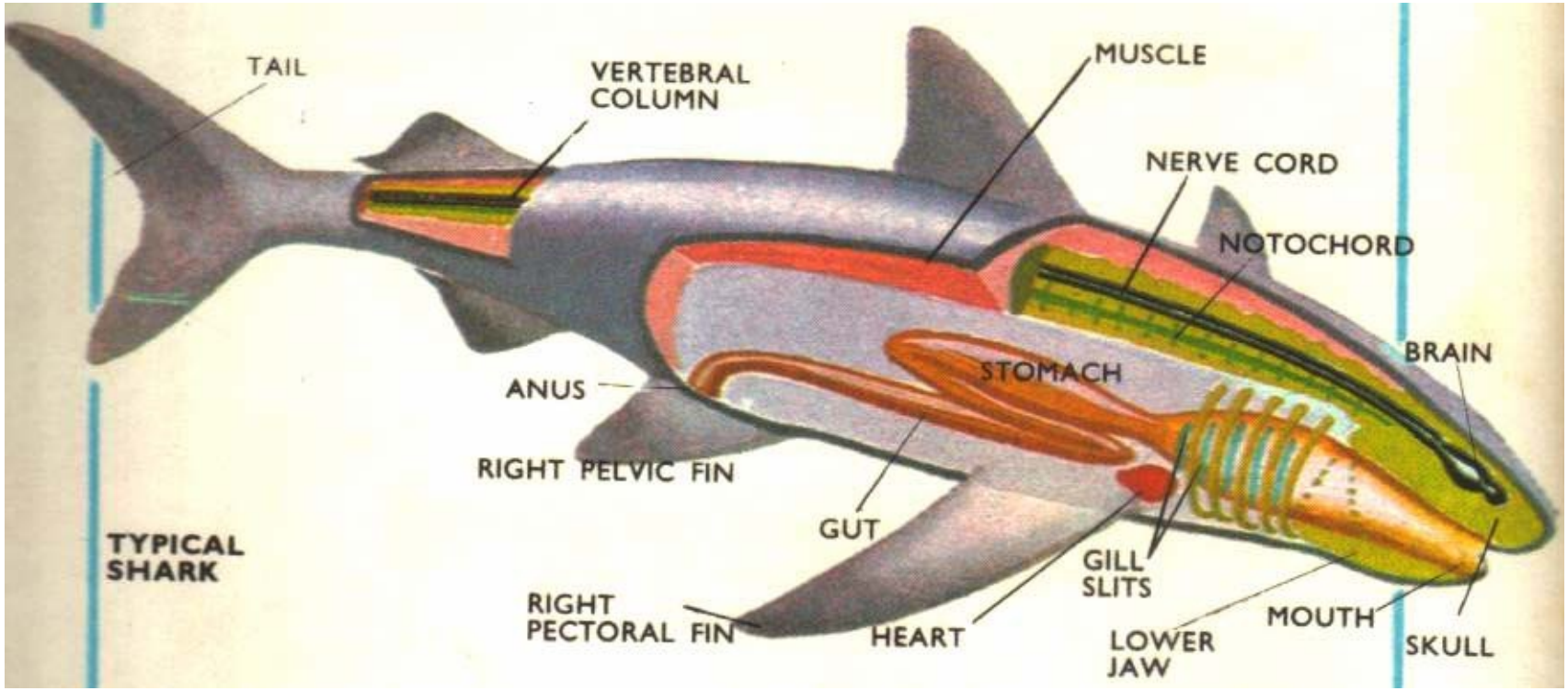
30-60 cm, dark grey above and pale white

Rough surface, placoid scales are present.

Body Division:

Head, trunk and tail (Ventral side fig)

Fins: Median, caudal, Paired pectoral and pelvic


TAIL
VERTEBRAL COLUMN
MUSCLE
NERVE CORD
NOTOCHORD
BRAIN
STOMACH
ANUS
RIGHT PELVIC FIN
GUT
TYPICAL SHARK
GILL SLITS
RIGHT PECTORAL FIN
HEART
MOUTH
LOWER JAW
SKULL

Skin:

Epidermis : Mucous gland are present

Dermis

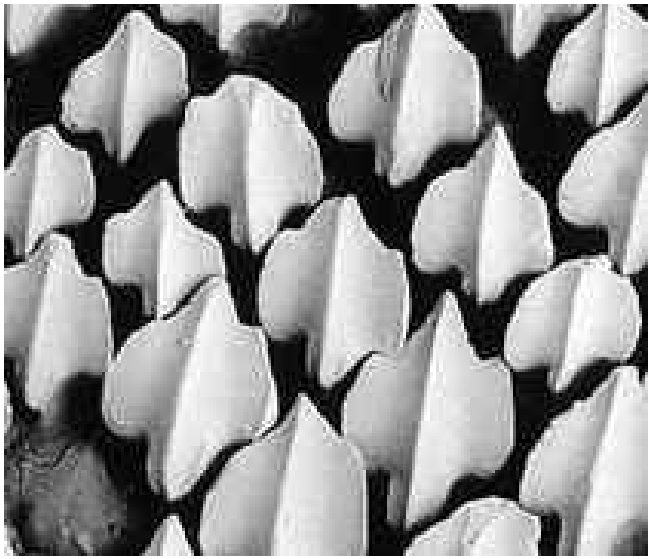
Exoskeleton:

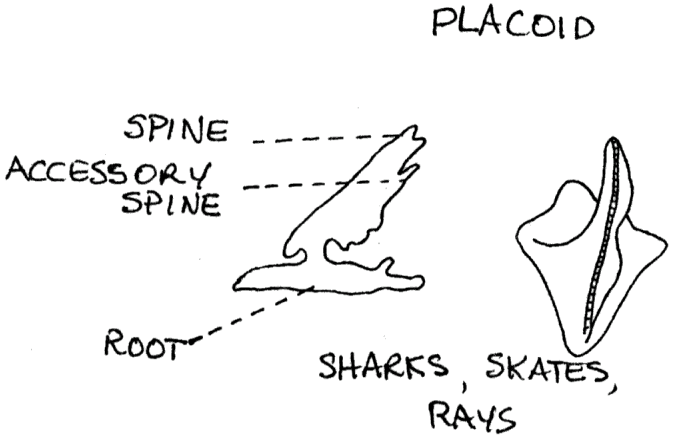
Placoid scales

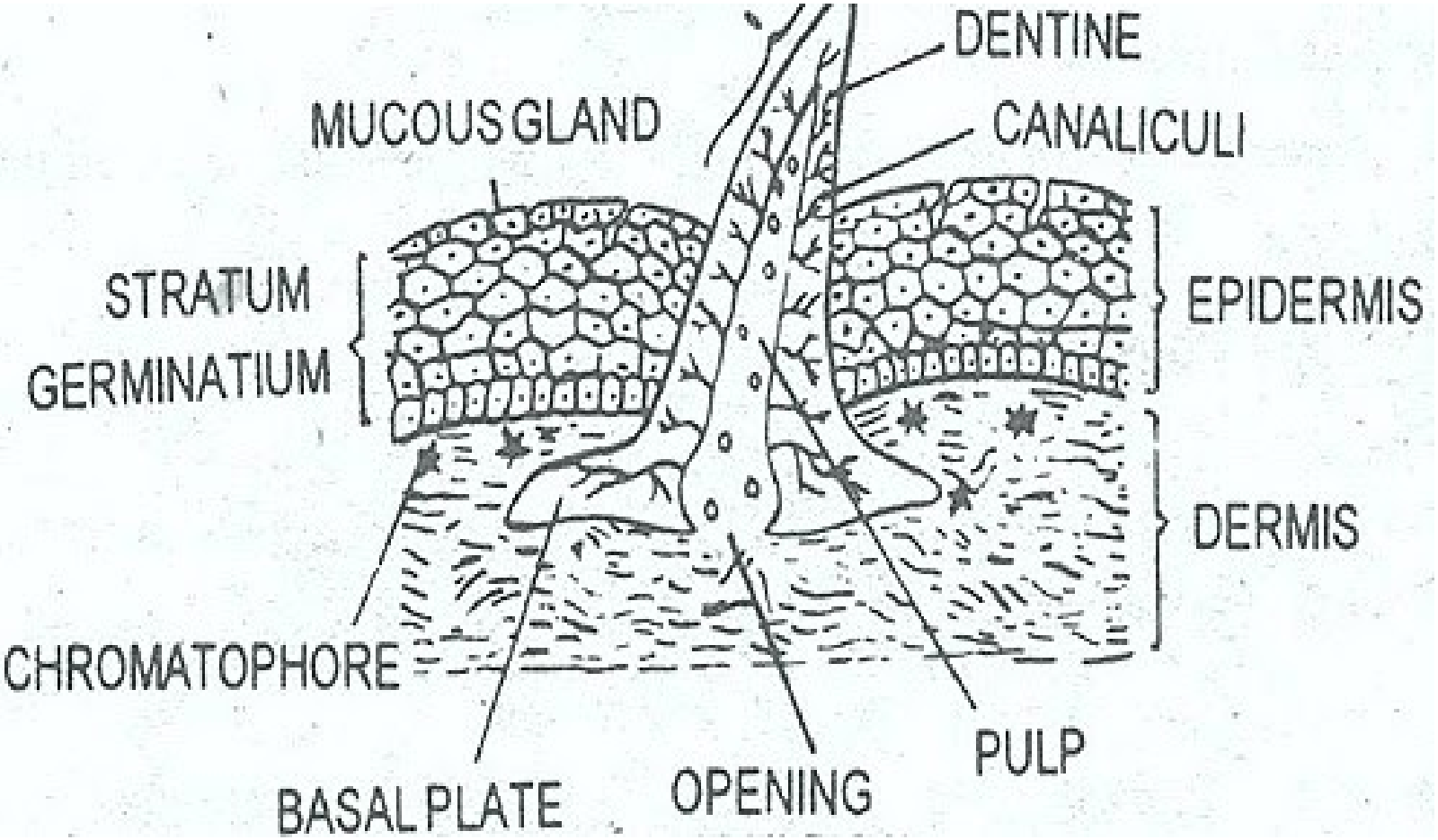
Endoskeleton:

Cartilaginous

Sexual dimorphism: claspers in male






DENTINE
MUCOUS GLAND
CANALICULI
STRATUM
GERMINATIUM
EPIDERMIS
DERMIS
CHROMATOPHORE
BASAL PLATE
OPENING
PULP

Functions Skin:

1. Protect from Mechanical injuries
2. Slimy mucus secretion make body slippery
3. Body colouration protect from enemies.
4. Skin receptors present.

Digestive system

- The digestive system includes the alimentary canal or gut and the glands that open into it
- Digestion is the process of simplification of the complex food material, which can be absorbed and assimilated by the body

Digestive system of Scoliodon can be described

Under fallowing manners..

1. Alimentary Canal
2. Gland of alimentary canal and
3. Physiology of digestion

Alimentary canal

- It is complete and longer than the body and includes buccal cavity, pharynx, oesophagus, stomach and intestine.

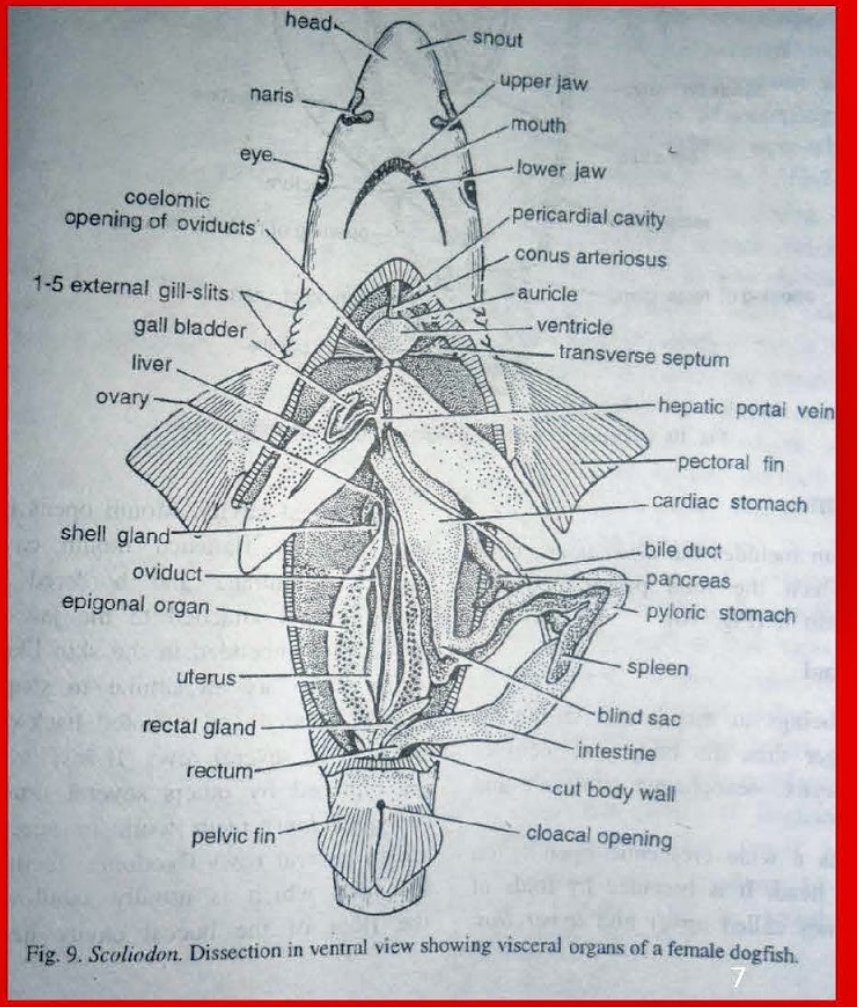


Fig. 9. *Scoliodon.* Dissection in ventral view showing visceral organs of a female dogfish.

Mouth:

Crescentic, ventral with upper and lower jows

Buccal Cavity:

Tongue, Homodont, basihyal cartilage, no gland.

Pharynx:

Ectoderm lined by either side, spiracles and gill

Pouch openings.

Mucous membrane l

Oesophagus:

Short, wide, thick and longitudinal folds of

Mucous membrane.

Stomach:

Cardiac stomach and pyloric stomach.

Blind sac and sphincter valves

Oesophagus valve, end of pyloric stomach bursa

Entiana present.

Opening of pyloric stomach is guarded by pyloric valve.

Intestine:

Wide, straight, internal mucous lining, bile and pancreatic duct opening

Scroll valve and move anti clock wise direction.

Rectum:

Rectal gland, cloaca and anus

Associated Glands ……

1. Liver, gall bladder
2. Pancreas
3. Rectal and
4. Spleen

Food and digestion:

1. Carnivorous

2. Digestion starts in cardiac stomach

Gastric juices i.e. pepsin, HcL, proteies and

Peptones. Unable to digest chitin.

3. Pancreas secrete trypsin, amylopsin and lipase.

Bile make food alkaline then action of pancreatic

Digestive food absorbed