

FRONT VIEW







LEMON SHARK NEGAPRION BREVIROSTRIS



BELOW AND BEYOND ART



WWW.BIMINISHARKLAB.COM WWW.BELOWANDBEYONDART.CO.UK



KEY FEATURES OF THE CHONDROCRANIUM

- A NASAL CAPSULE: Inside here are the olfactory organs. Scent chemicals, such as amino acids in blood, flow into the connected nostrils.
- B ROSTRAL CARTILAGE: This part is composed of three branches of cartilage, supporting the snout. The upper hole is called the rostral fenestra.
- **OREORBITAL PROCESS:** This cartilage supports the eyes which are attached to the skull by ocular muscles and large optic nerves.
- POSTORBITAL PROCESS: This cartilage provides support for the nictitating membrane muscle. The nictitating membrane protects the shark's eyes from injury, similar to our eyelids, but is covered in tough dermal denticles.
- **E** CRANIAL ROOF: This is where the shark's brain is encased. The entrance hole, called the anterior fontanelle, is covered by tissue, not cartilage.
- **PALATOQUADRATE:** The two cartilages that form the **upper jaw** of a shark.
- connections.
- **CERATOHYAL CARTILAGE:** This is the tongue-supporting cartilage which aids in jaw movement.
- MECKEL'S CARTILAGE: The two cartilages that form the lower jaw of the shark.
- **BASIHYAL CARTILAGE:** This is the **tongue cartilage** of the shark which supports jaw movement.
- suction of prey.
- brain
- N OTIC CAPSULE: This is the shark's inner ear case. Inside are the hearing organs which resemble small sandbags resting on innervated hair cells.
- skull to the body.
- P TOOTH: Lemon shark teeth have smooth edges and no serrations on either upper and lower sets. These teeth are well-adapted for gripping on prey such as bony fishes and crustaceans. The genus name Negaprion means "no serration."



DORSAL VIEW

G HYOMANDIBULAR CARTILAGE: This cartilage supports movement of the jaw through ligament

(C) LABIAL CARTILAGE: This cartilage, located at the posterior of the jaw, supports the vertical jaw movement. Larger and more developed labial cartilages aid in suction for some species. For example, the **small** labial cartilage of lemon sharks indicates that they rely on biting rather than

BASAL PLATE: This is the ventral side of the **chondrocranium**, providing lower support for the

ENDOLYMPHATIC AND PERILYMPHATIC FORAMINA: These are essentially the shark's ears. The upper hole is the endolymphatic and lower is perilymphatic, both are connected to the **otic capsule**.

• VERTEBRAE: This is where the first vertebra attaches to the occipital condyle, which connects the