

The complete mitochondrial genome of the javeline goby *acanthogobius hasta* (Perciformes, gobiidae) and phylogenetic considerations

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Introduction

The catfish genus *Amblyceps* is characterized by the fact that the epiphyseal commissure of the supraorbital sensory canal is just anterior to the epiphyseal crest and does not pass through it [1]. The frontal fontanelle narrows sharply along the posterior end, providing frontal bone support to the epiphyseal commissures. A fifth ceratobranchial flares inward at the posterior end. Pinnate rays at the leading edge of the anterior and medial caudal rays. Lateral crest along the entire posterior roof margin of the superior occipital bone and pterygoid process [2]. Posterior-posterior process of the horizontal lamina of the short or rudimentary urohyal, shorter than the horizontal lamina. The upper hiral where the compound center is fused [3]. The anterior nostrils are located just in front of the base of the muzzle. Both lips with double folds. It is also characterized by a protruding cup-shaped skin flap at the base of the thoracic vertebrae. *Amblyceps* is a genus of fish in the *Amblycipitidae* family. The genera *Amblyceps* and *Liobagrus* are a pair of sister groups, which are sisters of *Xiurenbagrus* [4]. These species are readily distinguished by the presence of pinnate processes along the central caudal ray (although these processes may be poorly developed in some species), at the base of the thoracic vertebrae. A prominent cupped skin flap and fins far apart from the adipose caudal fin. In most species, the caudal fin is deeply branched. *A. apangi* and *A. murraystuarti* differ in that they have truncated caudal fins [5]. *Amblyceps* species can reach a SL of about 100 mm. The majority of catfish live only in freshwater. They are easily identifiable by the thick mucus covering their bodies.

Description

A dumbbell that extends from either side of the chin. A thick dorsal fin is almost present, and there are almost no rays. The genus *Amblyceps*, proposed by Bryce in 1858, is a group of small freshwater catfish. Found in South and Southeast

Asia, *Amblycipitidae* usually inhabits the drainage channels of fast-flowing streams and rivers [4]. Gonads skilled a series of developmental and maturational stages to enter a stage, when it had been ovulated and fertilized for producing young ones. The processes involving several complicated cytological changes were identified supported staining properties of the different cell components at different stages. Head depressed, with expanded cheek muscles imparting slightly swollen appearance ahead of opercular region [2]. Eye ovoid, horizontal axis longest; located entirely in dorsal half head and subcutaneous. Barbels in 4 pairs. Maxillary barbel long and slender, extending to middle of pectoral-fin rays. Nasal barbel slender, extending to opercle. Inner mandibular-barbel origin near midline, extending to middle of pectoral-fin base. Mouth terminal, with mandible very slightly longer than upper; anterior edge barely visible dorsally [5]. Lips fleshy and slightly fimbriated, with alight developed rictal fold present below anterior border of eye. Premaxillary teeth in single broad semilunate band.

Conclusion

The cheek muscles on either side of the crease in the middle of the crown are slightly swollen and the head is sunken. The eyes are subcutaneous, small, and hemispherical. The anterior nostril is a complete tubular membrane and the posterior nostril is an incomplete tube, the anterior edge of which is basically connected to the nasal barbell. Notched posterior scar membrane trailing edge. The gill openings are wide, the gill membranes are united but without isthmuses, and there are ten gill lines on each side. 4 pairs of flat barbells that extend from either side of the chin. The maxillary barbell is the longest, starting at the ends of the upper and lower rib folds and reaching the posterior ends of the bases of the pectoral fins. The nose barbell almost reaches the eyelids. Lateral mandibular barbell extending to base of mesothorax. The inner mandibular barbell is offset in two from the midabdominal line and the outer mandibular

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barbell extends to the mid-chest.

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Conflict of Interest

The author declares there is no conflict of interest in publishing this article.

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References

1. Bibb MJ, Van Etten RA, Wright CT, et al. Sequence and

gene organization of mouse mitochondrial DNA. *Cell.* 1981; 26(2):167-80.

2. Cao Y, Waddell PJ, Okada N, et al. The complete mitochondrial DNA sequence of the shark *mustelus manazo*: Evaluating rooting contradictions to living bony vertebrates. *Mol Biol Evol.* 1998; 15(12):1637-46.

3. Doda JN, Wright CT, Clayton DA. Elongation of displacement-loop strands in human and mouse mitochondrial DNA is arrested near specific template sequences. *Proc Natl Acad Sci U S A.* 1981; 78(10):6116-20.

4. Hurst CD, Bartlett SE, Davidson WS, et al. The complete mitochondrial DNA sequence of the atlantic salmon, *Salmo salar*. *Gene.* 1999; 239(2):237-42.

5. Lee WJ, Kocher TD. Complete sequence of a sea lamprey (*Petromyzon marinus*) mitochondrial genome: Early establishment of the vertebrate genome organization. *Genetics.* 1995; 139(2):873-87.