

The Mouth and Gastrointestinal Tract of the African Lung Fish *Protopterus annectens* in River Niger at Agenebode, Nigeria

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Abstract : The West African Lung fishes are fishes rich in protein and serve as an important source of food supply for man. The kind of food ingested by this group of fishes is dependent on the alimentary canal as well as the fish's digestive processes which provide suitable modifications for maximum utilization of food taken. A study of the alimentary canal of *P. annectens* will expose the best information on the anatomy and histology of the fish. Samples of *P. annectens* were dissected to reveal the liver, pancreas and entire gut wall. Digital pictures of the mouth, jaws and the Gastrointestinal Tract (GIT) were taken. The entire gut was identified, sectioned and micro graphed. *P. annectens* was observed to possess a terminal mouth that opens up to 10% of its total body length, an adaptive feature to enable the fish to swallow the whole of its prey. Its dentition is made up of incisors- scissor-like teeth which also help to firmly grip, seize and tear through the skin of prey before swallowing. A short, straight and longitudinal GIT was observed in *P. annectens* which is known to be common feature in lungfishes, though it is thought to be a primitive characteristic similar to the lamprey. The oesophagus is short and distensible similar to other predatory and carnivorous species. Food is temporarily stored in the stomach before it is passed down into the intestine. A pyloric aperture is seen at the end of the double folded pyloric valve which leads into an intestine that makes up 75% of the whole GIT. The intestine begins at the posterior end of the pyloric aperture and winds down in six coils through the whole length intestine and ends at the cloaca. From this study it is concluded that *P. annectens* possess a composite GIT with organs similar to other lung fishes; it is a detritor with carnivorous abilities.

Keywords : gastrointestinal tract, incisors scissor-like teeth, intestine, mucus, *Protopterus annectens*, serosa

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