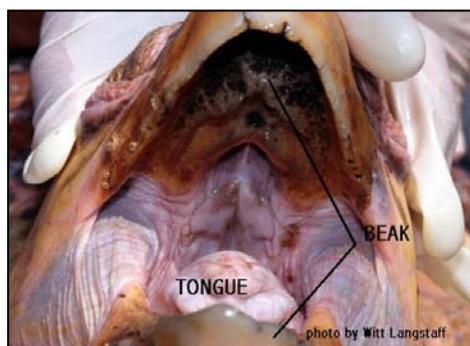
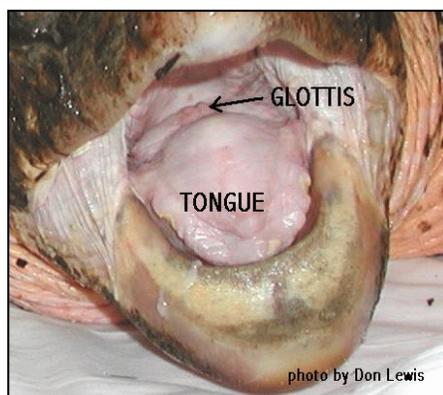


## Chapter 4: Oral Cavity Anatomy

The oral cavity is described here in detail to assist in performing general health assessments, as well as to identify the location of hooks in incidentally captured turtles, especially to distinguish hooks that are swallowed from those lodged in the oral cavity (Figures 1-6). Do not attempt to remove hooks when it appears removal will cause further serious injury to the turtle. For all hooked animals, follow the guidance in the Careful Release Protocols for Sea Turtle Release with Minimal Injury (Epperly et al. 2004: NOAA Technical Memorandum NMFS-SEFSC-524).



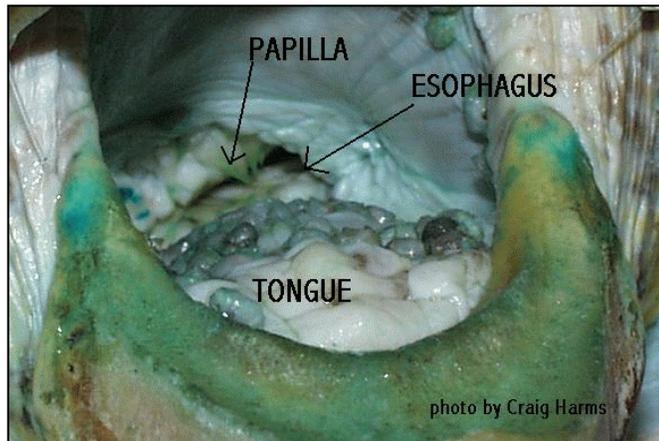
**Figure 4-1.** The beaks, or rhamphotheci, of the upper and lower jaws of hardshell sea turtles are keratinized and cover many of the bones of the upper jaw and dentary of the lower jaw. They differ among species and can be used for identification (Photo by W. Longstaff).



**Figure 4-2.** The tongue is a large, nonprotrusible, muscular organ fixed to the floor of the mouth. The glottis, the opening to the trachea and the valve to open and close the airway, is located on the middle part of the tongue, and is closed in this photograph (Photo by D. Lewis).



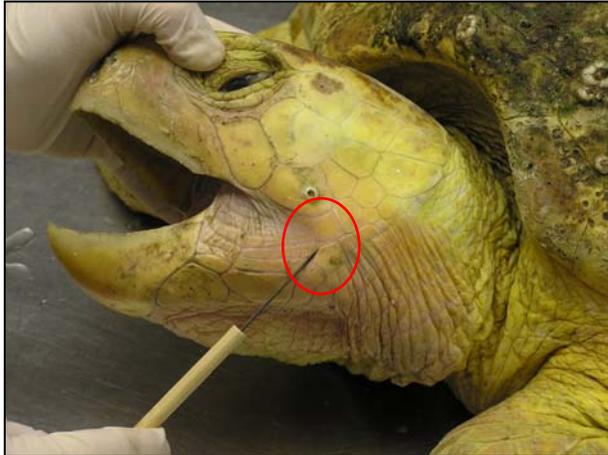
**Figures 4-3a and b.** An open and closed glottis (Photos by C. Harms, N.C. State University).



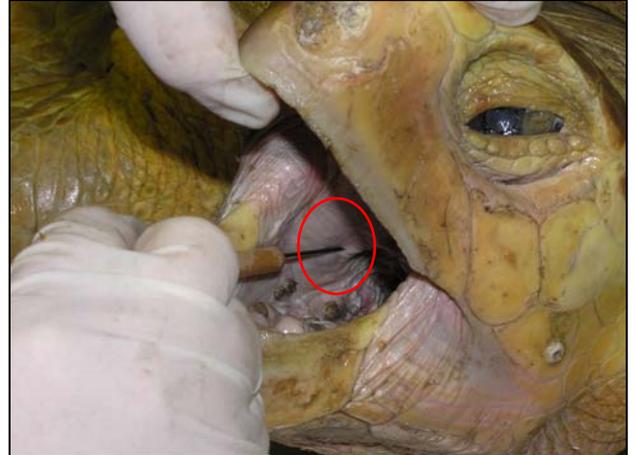
**Figure 4-4.** The esophagus starts at the back of the mouth behind the tongue and links the oral cavity to the stomach. Most of the length of the esophagus is lined with sharp, keratinized papillae that point towards the stomach. These are presumed to trap food, preventing it from working its way back up when excess water is expelled (Photo by C. Harms, N.C. State University).



**Figure 4-5.** Ventral view of the palate (roof of mouth) and upper jaw. The palate is ventral to the braincase. (NMFS/SEFSC photo).



**Figure 4-6a.** External view of jaw joint location, indicated by the pointer (NMFS/SEFSC photo).



**Figure 4-6b.** Internal view of jaw joint location and side of mouth (NMFS/SEFSC photo).